



April 29, 2011

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

**Re: *North American Electric Reliability Corporation,*
Docket No. RM11-__-000**

Dear Ms. Bose:

The North American Electric Reliability Corporation (“NERC”) hereby submits this petition in accordance with Section 215(d)(1) of the Federal Power Act (“FPA”) and Part 39.5 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) regulations and in compliance with directives in FERC Order No. 693¹ seeking approval of the following proposed Personnel Performance, Training and Qualifications (PER) Reliability Standard set forth as **Exhibit A** to this petition that was approved by the NERC Board of Trustees on February 17, 2011:

- PER-003-1 — Operating Personnel Credentials

Additionally, NERC requests FERC approval for the associated Implementation Plan for PER-003-1 that calls for the retirement of Reliability Standard PER-003-0 and effective date of PER-003-1 that is the first day of the first calendar quarter twelve months after Commission approval of PER-003-1.

¹ *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242 (2007), *order on reh’g* Order No. 693-A, 120 FERC ¶ 61,053 (2007)(“Order No. 693”).

This filing discusses the proposed PER-003-1 Reliability Standard and how the proposed standard and associated Implementation Plan meet the criteria identified by FERC in Order No. 672² for approving Reliability Standards.

This filing consists of the following:

- This transmittal letter;
- A table of contents;
- A narrative description explaining how the proposed PER-003-1 Reliability Standard meets FERC's requirements;
- The proposed PER-003-1 Reliability Standard submitted for approval (**Exhibit A**);
- The associated Implementation Plan for the proposed PER-003-1 Reliability Standard submitted for approval (**Exhibit B**);
- Consideration of Stakeholder Comments (**Exhibit C**);
- The Development Record of the proposed PER-003-1 Reliability Standard and the associated Implementation Plan (**Exhibit D**); and
- The Standard Drafting Team Roster for Project 2007-04 Certifying System Operators (**Exhibit E**)

Please contact me if you have any questions regarding this filing.

Respectfully submitted,

/s/ Andrew M. Dressel
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Attorney for North American
Electric Reliability Corporation

² See *Rules Concerning Certification of the Electric Reliability Organization; Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards*, FERC Stats. & Regs., ¶ 31,204 at PP 320-338 (“Order No. 672”), *order on reh’g*, FERC Stats. & Regs. ¶ 31,212 (2006) (“Order No. 672-A”).

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION**

) **Docket No. RM11-__-000**
)

**PETITION OF THE NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION FOR APPROVAL OF A PERSONNEL PERFORMANCE,
TRAINING, AND QUALIFICATIONS RELIABILITY STANDARD**

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April 29, 2011

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Exhibit A — Proposed PER-003-1 Reliability Standard submitted for approval

Exhibit B — Implementation Plan for PER-003-1 submitted for approval

Exhibit C — Consideration of Stakeholder Comments

Exhibit D — Development Record of the proposed PER-003-1 Reliability Standard and the associated Implementation Plan

Exhibit E — Standard Drafting Team Roster for Project 2007-04 Certifying System Operators

I. INTRODUCTION

The North American Electric Reliability Corporation (“NERC”)¹ hereby requests the Federal Energy Regulatory Commission (“FERC”) to approve, in accordance with Section 215(d)(1) of the Federal Power Act (“FPA”)² and Section 39.5 of FERC’s regulations, 18 C.F.R. § 39.5, the following Reliability Standard:

- PER-003-1 — Operating Personnel Credentials

This filing satisfies certain directives the Commission issued in Order No. 693 pertaining to identification of the minimum competencies that must be demonstrated to become and remain a certified operator and to consider grandfathering certification requirements for System Operator personnel as part of the standard development process.³

The NERC Board of Trustees approved the proposed Reliability Standard on February 17, 2011, and recommended it be added to the set of approved NERC Reliability Standards. In this filing, NERC requests FERC approval of the proposed Reliability Standard and the associated Implementation Plan for the PER-003-1 Reliability Standard.

NERC requests the effective date for the proposed PER-003-1 Reliability Standard be the first day of the first calendar quarter twelve months after Commission approval of PER-003-1.

Exhibit A to this filing sets forth the proposed Reliability Standard. Although normally included, due to the large number of differences between the proposed PER-003-1 and the previously Commission-approved PER-003-0, development of a redline version is impractical. Therefore, NERC includes in section IV of this filing a description of the changes reflected in the

¹ NERC has been certified by FERC as the electric reliability organization (“ERO”) authorized by Section 215 of the Federal Power Act. FERC certified NERC as the ERO in its order issued July 20, 2006 in Docket No. RR06-1-000. 116 FERC ¶ 61,062 (2006) (“ERO Certification Order”).

² 16 U.S.C. 824o.

³ *Mandatory Reliability Standards for the Bulk-Power System*, 118 FERC ¶ 61,218, FERC Stats. & Regs. ¶ 31,242 (2007) (“Order No. 693”) at P 1407-1409.

proposed standard. **Exhibit B** contains the Implementation Plan for PER-003-1 which is submitted herein for approval. **Exhibit C** contains the consideration of stakeholder comments that highlights stakeholders' comments on this standard and NERC's responses to these stakeholders. **Exhibit D** contains the development record for the proposed PER-003-1 Reliability Standard and the associated Implementation Plan. **Exhibit E** contains the Standard Drafting Team Roster for Project 2007-04 Certifying System Operators which was responsible for drafting the proposed PER-003-1 standard and associated Implementation Plan

NERC is also filing the proposed PER-003-1 Reliability Standard and associated documents with the applicable governmental authorities in Canada.

II. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:

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*Persons to be included on FERC's service list are indicated with an asterisk. NERC requests waiver of FERC's rules and regulations to permit the inclusion of more than two people on the service list.

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III. BACKGROUND

a. Regulatory Framework

By enacting the Energy Policy Act of 2005,⁴ Congress entrusted FERC with the duties of approving and enforcing rules to ensure the reliability of the Nation’s bulk power system (“BPS”), and with the duties of certifying an Electric Reliability Organization (“ERO”) that would be charged with developing and enforcing mandatory Reliability Standards, subject to FERC approval. Section 215 of the Federal Power Act⁵ states that all users, owners and operators of the BPS in the United States will be subject to the FERC-approved Reliability Standards.

The principal purpose of the proposed PER-003-1 Reliability Standard is to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System (“BES”).

b. Basis for Approval of Proposed Reliability Standard

Section 39.5(a) of FERC’s regulations⁶ requires the ERO to file with FERC for its approval each Reliability Standard that the ERO proposes to become mandatory and enforceable in the United States, and each modification to an approved Reliability Standard that the ERO proposes to be made effective. FERC has the regulatory responsibility to approve standards that protect the reliability of the BPS. In discharging its responsibility to review, approve and

⁴ Energy Policy Act of 2005, Pub. L. No. 109-58, Title XII, Subtitle A, 119 Stat. 594, 941 (2005) (codified at 16 U.S.C. § 824o).

⁵ 16 U.S.C. § 824o (2005).

⁶ 18 C.F.R. § 39.5 (2010).

enforce mandatory Reliability Standards, FERC is authorized to approve those proposed Reliability Standards that meet the criteria detailed by Congress:

*The Commission may approve, by rule or order, a proposed reliability standard or modification to a reliability standard if it determines that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest.*⁷

When evaluating proposed Reliability Standards, FERC is required by Section 215(d)(2) of the Federal Power Act to give “due weight” to the technical expertise of the ERO.⁸

Additionally, in Order No. 693, the Commission stated:

Pursuant to Section 215(d)(2) of the FPA and § 39.5(c) of the Commission’s regulations, the Commission will give due weight to the technical expertise of the ERO with respect to the content of a Reliability Standard or to a Regional Entity organized on an Interconnection-wide basis with respect to a proposed Reliability Standard or a proposed modification to a Reliability Standard to be applicable within that Interconnection.⁹

Order No. 672 provides guidance on the fifteen factors FERC will consider when determining whether proposed Reliability Standards meet the statutory criteria.¹⁰

The proposed PER-003-1 Reliability Standard serves the important reliability goal of establishing a minimum level of competency for System Operators performing the reliability-related tasks of a Reliability Coordinator, Balancing Authority or Transmission Operator that is necessary for the reliable operation of the BES. The proposed PER-003-1 Reliability Standard improves reliability by:

- requiring System Operators who are filling a Real-time operating position for a Reliability Coordinator, Balancing Authority or Transmission Operator be NERC Certified through the NERC System Operator Certification Program; and

⁷ 16 U.S.C. § 824o(d)(2).

⁸ *Id.*

⁹ Order No. 693 at P 8.

¹⁰ *Rules Concerning Certification of the Electric Reliability Organization; Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards, FERC Stats. & Regs.*, ¶ 31,204 at PP 320-338 (“Order No. 672”) at PP 320-338, *Order on Reh’g*, FERC Stats. & Regs. ¶ 31,212 (2006) (“Order No. 672-A”).

- requiring demonstration of minimum competencies in certain areas dependent upon the operating position being filled.

c. Reliability Standards Development Procedure

NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Standard Processes Manual*, which is incorporated into the Rules of Procedure as Appendix 3A.¹¹ In its ERO Certification Order, FERC found that NERC's proposed rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards and thus satisfies certain of the criteria for approving Reliability Standards.¹²

The development process is open to any person or entity with a legitimate interest in the reliability of the bulk power system. NERC considers the comments of all stakeholders and an affirmative vote of stakeholders and the NERC Board of Trustees is required to approve a Reliability Standard for submission to FERC.

The work culminating in this filing originated from the directives in FERC Order No. 693.¹³ In Order No. 693, the Commission approved Reliability Standard PER-003-0, and directed as follows:

We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f)

¹¹ NERC's *Reliability Standards Development Procedure* is available on NERC's website at http://www.nerc.com/fileUploads/File/Standards/RSDP_V6_1_12Mar07.pdf. Note that FERC approved the new *Reliability Standard Processes Manual* on September 3, 2010 (FERC Docket No. RR10-12-000), which replaces the *Reliability Standards Development Procedure Version 7* in its entirety. NERC developed this standard in accordance with the *Reliability Standards Development Procedure Version 7* until the *Standard Processes Manual* was approved on September 3, at which time that procedure was used to complete development of the proposed standard.

¹² *Order Certifying North American Electric Reliability Corporation as the Electric Reliability Organization and Ordering Compliance Filing*, 116 FERC ¶ 61,062 (2006) at P 250.

¹³ Order No. 693 at P 1407 -1409.

of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process.¹⁴

In its first directive on this issue, FERC directed that NERC establish a standard that included identification of the minimum competencies operators must demonstrate to become and remain a certified operator and consider grandfathering certification requirements for System Operator personnel as part of the standard development process.¹⁵ The proposed PER-003-1 Reliability Standard addresses FERC's Order No. 693 directives with an equivalent alternative and with adequate support that fully explains how the alternative produces a result that is as effective as or more effective than the Order No. 693 directives.¹⁶

The first FERC directive is addressed by inclusion of minimum competency areas that a System Operator must demonstrate proficiency within the requirements. PER-003-1 identifies areas of competency that operators must demonstrate proficiency. This allows the functional entities to ensure that all operators are knowledgeable in all aspects of operation necessary to perform daily and emergency operations of the BPS identified through a job and task analysis performed by NERC's Personnel Subcommittee. The functional entities are also required to develop a systematic approach to training in accordance with PER-005-1 that is tailored to addresses the reliability needs of that entity.

¹⁴ *Id.* at P 1409.

¹⁵ *Id.* at P 1407.

¹⁶ *Id.* at P 31. In Order No. 693, the Commission stated that: "We emphasize that we are not, at this time, mandating a particular outcome by way of these directives, but we do expect the ERO to respond with an equivalent alternative and adequate support that fully explains how the alternative produces a result that is as effective as or more effective than the Commission's example or directive."

NERC's System Operator Certification Program provides the mechanism to ensure System Operators are afforded the opportunity to obtain the essential knowledge and skills to operate the BPS. The System Operator Certification Program provides the framework for the examinations used to obtain initial certification in one of four NERC credentials: Transmission Operator; Balancing and Interchange Operator; Balancing, Interchange and Transmission Operator; and Reliability Operator. The System Operator Certification Program awards certification credentials to those individuals who demonstrate that they have attained sufficient knowledge relating to NERC Reliability Standards as well as the basic principles of BPS operations. Initially, this knowledge is tested through a certification exam. The credential must then be maintained by accumulating a specified number of continuing education hours within a specified period of time.¹⁷

The second directive to consider "grandfathering" certain transmission operator personnel was met when the standards drafting team ("SDT") extensively considered this issue. However, the SDT concluded that grandfathering should not be allowed within this standard. The major factors that the drafting team based its decision to not allow grandfathering are as follows:

1. Certification ensures that System Operators with responsibility for Real-time operations have a minimum level of knowledge that assists in their achieving reliable operations. As the ERO, NERC has responsibility for ensuring the Real-time operation of the BPS. Passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator.

¹⁷ See System Operator Certification Program Manual (2009). Available at: http://www.nerc.com/files/SOC_Program_Manual_Dec_2009.pdf.

2. While a concern was expressed about experienced System Operators not being able to pass an examination, there was no convincing evidence provided to support this concern. Grandfathering would greatly diminish the validity and defensibility of the NERC System Operator Certification Program. The SDT was unable to find evidence that grandfathering would have a positive impact on either the NERC Certification Program or the reliability of the BPS.
3. A concern emerged that industry employers may have labor relations issues due to requiring portions of their workforce to hold a NERC System Operator Certification. The SDT did not find this concern to be persuasive because of the following:
 - a. PER-003-1 applicability impacts the population of System Operators that are already NERC certified under PER-003-0. There should not be any large-scale scope change impacting non-NERC certified personnel. Overall labor relations issues that arose due to the NERC System Operator Certification requirements have, for the most part, already been settled.
 - b. There are several members on the SDT that have experience with the NERC System Operator Certification requirement that is currently enforced on bargaining unit personnel within their organization. Their experience identified that most collective bargaining unit agreements have some provision that addresses regulatory or legal changes that affect the organization personnel.
4. Another concern involved smaller entities being able to retain personnel within their organization once they obtain a NERC System Operator Certification. The concern appears to be that the System Operators would become more “marketable” and would

possibly be enticed to leave smaller organizations to join larger organizations that typically have higher pay scales.

- a. As stated above (remark 3a), the target population for NERC System Operator Certification already hold a NERC Certification. There will not be a significant number of individuals who will become more marketable than they were previously.
- b. The NERC System Operator Certification Program is designed to ensure that System Operators who make decisions impacting the operation of the BPS possess at least a minimum competency. Whether a System Operator works for a large or small entity, verifying their minimum knowledge level has a very positive impact on the BPS reliability. While personnel retention is an important issue within the industry, reducing requirements on verifying and improving the capabilities of System Operators is not an appropriate corrective action.

The proposed Reliability Standard set out in **Exhibit A** has been developed and approved by industry stakeholders using NERC's *Reliability Standards Development Procedure* and its replacement, the *NERC Standard Processes Manual*.¹⁸ A discussion of this process appears in section III.c. of this filing. The proposed PER-003-1 Reliability Standard was approved by the NERC Board of Trustees on February 17, 2011.

¹⁸ NERC's *Reliability Standards Development Procedure* and its replacement the *NERC Standards Process Manual* are available on NERC's website at http://www.nerc.com/fileUploads/File/Standards/RSDP_V6_1_12Mar07.pdf. Note that FERC approved the new *Reliability Standards Processes Manual* on September 3, 2010 (FERC Docket No. RR10-12-000), which replaces the *Reliability Standards Development Procedure Version 7* in its entirety.

IV. JUSTIFICATION FOR APPROVAL OF PROPOSED MODIFICATIONS TO RELIABILITY STANDARDS

a. Section Overview

This section summarizes the development of the proposed PER-003-1 Reliability Standard. The discussion in this section is also intended to demonstrate that the proposed modifications meet the criteria for approval established by FERC. That is, the proposed PER-003-1 Reliability Standard is just, reasonable, not unduly discriminatory or preferential and in the public interest.¹⁹ Furthermore, PER-003-1 is an improvement over the previous Commission-approved standard. PER-003-1 addresses the Commission's directives in Order No. 693 (as discussed in section III.c. above), ensures that all real-time operators responsible for reliability-related tasks are proficient to perform their role under normal and emergency conditions, and that non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator.²⁰

As previously stated, the proposed PER-003-1 Reliability Standard is provided in **Exhibit A**. Due to the substantial differences between the proposed PER-003-1 and the previously Commission-approved PER-003-0, the development of a redline version highlighting changes from the version 0 to the version 1 standard is impractical. Therefore, the changes reflected in the proposed standard are described below. The Implementation Plan for PER-003-1 is provided in **Exhibit B**. NERC's consideration of stakeholders' comments is included in **Exhibit C**. The complete development record for the proposed Reliability Standard and the associated

¹⁹ See Order No. 672 at P 320-338, *see also* 16 U.S.C § 824o(d)(2) .

²⁰ Footnote 1 to Reliability Standard PER-003-1 — Operating Personnel Credentials Standard states that “Non-NERC certified personnel performing any reliability-related task of an operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.” This ensures that a certified System Operator is always responsible for real-time reliability-related tasks.

Implementation Plan is provided in **Exhibit D**. The SDT roster for this standard is provided in **Exhibit E**. This extensive development record includes successive drafts of the standard, identification of the ballot pool members, final ballot results by registered ballot body members, stakeholder comments received during the development of proposed PER-003-1 Reliability Standard and a discussion regarding how stakeholder comments were considered in developing the standard.

The proposed PER-003-1 Reliability Standard requires System Operators who are filling a Real-time operating position for a Reliability Coordinator, Balancing Authority or Transmission Operator to be NERC Certified through the NERC System Operator Certification Program. The proposed standard also requires that System Operators demonstrate minimum competencies necessary for their particular operating position.

The proposed PER-003-1 Reliability Standard contains three requirements. Requirement R1 requires each Reliability Coordinator staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in certain areas by obtaining and maintaining a valid NERC Reliability Operator certificate. Requirement R2 mandates that each Transmission Operator to staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in certain areas by obtaining and maintaining a valid NERC certificate applicable to that operating position. Finally, Requirement R3 requires each Balancing Authority to staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in certain areas obtaining and maintaining a valid NERC certificate applicable to that operating position.

b. Demonstration that the proposed Reliability Standard is just, reasonable, not unduly discriminatory or preferential and in the public interest

In order to approve a Reliability Standard proposed by the ERO, FERC must determine, after notice and opportunity for public hearing, that the standard is just, reasonable, not unduly discriminatory or preferential and in the public interest.²¹ In Order No. 672, FERC identified a number of criteria it will use to analyze Reliability Standards proposed for approval to ensure they are just, reasonable, not unduly discriminatory or preferential, and in the public interest. A discussion of how the proposed PER-003-1 Reliability Standard meets the guidelines identified by FERC in Order No. 672 that FERC considers in approving a proposed standard follows.

1. Proposed Reliability Standards must be designed to achieve a specified reliability goal

Order No. 672 at P 321. The proposed Reliability Standard must address a reliability concern that falls within the requirements of section 215 of the FPA. That is, it must provide for the reliable operation of Bulk-Power System facilities. It may not extend beyond reliable operation of such facilities or apply to other facilities. Such facilities include all those necessary for operating an interconnected electric energy transmission network, or any portion of that network, including control systems. The proposed Reliability Standard may apply to any design of planned additions or modifications of such facilities that is necessary to provide for reliable operation. It may also apply to Cyber security protection.

The proposed PER-003-1 Reliability Standard is designed to achieve the specified reliability goal of ensuring that Real-time System Operators possess and maintain a sufficient knowledge level and ability to operate the BPS reliably. This goal is achieved by requiring Real-time System Operators to hold a NERC Certification that is specific to the nature of the functional tasks each applicable System Operator (Reliability Coordinator, Balancing Authority or Transmission operator) performs when operating the BPS.

In critical and safety-related capacities within our society, the personnel that perform key functions are typically among the most important determinates of the success delivering those vital services. Real-time System Operators perform one of those critical and safety-related roles.

²¹ Section 215(d)(2)(A) of the FPA; 18 C.F.R. §39.5.

Real-time System Operators are the personnel who operate the BPS during normal, abnormal and emergency system conditions and assuring their qualifications is an important aspect of promoting system reliability. This Reliability Standard is designed to ensure that the Real-time Reliability Coordinators, Transmission Operators and Balancing Authorities System Operators have demonstrated that they have attained and maintain a required knowledge level directly tied to their job tasks associated with BES operation. The NERC System Operator Certification Program assesses the Real-time operators' knowledge level ensuring that the operators possess at least the minimum competencies to perform the role and then assures the operators' credentials are maintained through regular completion of training programs that enhance their knowledge and capability. This method of assessing and certifying the qualifications of key personnel is very respected and effective and is therefore a very effective method of promoting BPS reliability.

2. Proposed Reliability Standards must contain a technically sound method to achieve the goal

Order No. 672 at P 324. The proposed Reliability Standard must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve this goal. Although any person may propose a topic for a Reliability Standard to the ERO, in the ERO's process, the specific proposed Reliability Standard should be developed initially by persons within the electric power industry and community with a high level of technical expertise and be based on sound technical and engineering criteria. It should be based on actual data and lessons learned from past operating incidents, where appropriate. The process for ERO approval of a proposed Reliability Standard should be fair and open to all interested persons.

The proposed PER-003-1 Reliability Standard contains a technically sound method to strengthen the reliability of the Bulk Electric System by ensuring that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program. In its development of the proposed Reliability Standard, the SDT included in Requirements R1,

R2 and R3 “Areas of Competency” for each of the functional entities. These provide the clarity requested by the Commission for the framework to identify the minimum competencies for System Operators filling Real-time operating positions. In addition, Requirements R2.2 and R3.2, allow the functional entities the flexibility to utilize System Operators with any of the three listed NERC Certificates to fill designated Real-time operating positions.

Additionally, to address the ambiguities in the existing approved PER-003-0 standard related to “trainees” in Real-time operations, the standard includes a footnote to explain the responsibilities of NERC Certified System Operators when non-NERC certified personnel are performing any reliability-related task.

The proposed PER-003-1 Reliability Standard has been developed by an SDT with a broad base of Real-time operating experience from entities registered as Reliability Coordinators, Balancing Authorities and Transmission Operators in addition to team members with compliance enforcement and NERC Certificate program maintenance responsibilities. The SDT adhered to NERC’s standards development process allowing for industry comment and ballot of the proposed standard. Extensive industry comments on the standard were received and evaluated through several postings. Many of the comments have been incorporated into the final draft of the standard and have resulted in a refined, high-quality standard.

3. Proposed Reliability Standards must be applicable to users, owners, and operators of the bulk power system, and not others

Order No. 672 at P 322. *The proposed Reliability Standard may impose a requirement on any user, owner, or operator of such facilities, but not on others.*

The proposed PER-003-1 Reliability Standard is only applicable to Reliability Coordinators, Balancing Authorities and Transmission Operators. These entities are users, owners, or operators of the bulk power system.

4. Proposed Reliability Standards must be clear and unambiguous as to what is required and who is required to comply

Order No. 672 at P 325. *The proposed Reliability Standard should be clear and unambiguous regarding what is required and who is required to comply. Users, owners, and operators of the Bulk-Power System must know what they are required to do to maintain reliability.*

Each of the requirements in the proposed PER-003-1 Reliability Standard is clear in identifying the required performance and who is required to comply. Specifically, this standard mandates that all System Operators performing functional entities’ reliability-related tasks must possess a valid NERC Reliability Operator Certificate. This ensures that the operator has demonstrated at least minimum competencies in certain defined areas applicable to the particular operating position. Additionally, the requirements clearly state that all Reliability Coordinators, Transmission Operators and Balancing Authorities must meet this standard.

5. Proposed Reliability Standards must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation

Order No. 672 at P 326. *The possible consequences, including range of possible penalties, for violating a proposed Reliability Standard should be clear and understandable by those who must comply.*

The proposed standard includes clear and understandable consequences by assigning each primary requirement a violation risk factor (“VRF”) and a violation severity level (“VSL”). These elements form the basis of an initial value range for the Base Penalty Amount regarding violations of requirements in FERC-approved Reliability Standards, as defined in the ERO Sanction Guidelines. The table below shows the VRFs and VSLs resulting in the indicated range of penalties for violations.

Requirement R1

VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
High	N/A	N/A	N/A	The Reliability Coordinator failed to staff each Real-time

VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
				operating position performing Reliability Coordinator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R1.

Requirement R2

VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
High	N/A	N/A	N/A	The Transmission Operator failed to staff each Real-time operating position performing Transmission Operator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R2, Part 2.2.

Requirement R3

VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
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VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
High	N/A	N/A	N/A	The Balancing Authority failed to staff each Real-time operating position performing Balancing Authority reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R3, Part 3.2.

6. Proposed Reliability Standards must identify clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner

Order No. 672 at P 327. *There should be a clear criterion or measure of whether an entity is in compliance with a proposed Reliability Standard. It should contain or be accompanied by an objective measure of compliance so that it can be enforced and so that enforcement can be applied in a consistent and non-preferential manner.*

The proposed PER-003-1 Reliability Standard identifies clear and objective criteria in the language of the requirements so that the standard can be enforced in a consistent and non-preferential manner. The language in the requirements is unambiguous with respect to the applicable entity expectations. Each requirement in the proposed PER-003-1 Reliability Standard has the same reliability objective; to ensure that a System Operator performing Real-time operating reliability-related tasks is competent to perform such tasks. Therefore, a single measure is sufficient. The measure included in the proposed standard is:

Measure M1 - Each Reliability Coordinator, Transmission Operator and Balancing

Authority shall have the following evidence to show that it staffed its Real-time operating

positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2 and R3):

M1.1 A list of Real-time operating positions.

M1.2 A list of System Operators assigned to its Real-time operating positions.

M1.3 A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency.

M1.4 Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

7. Proposed Reliability Standards should achieve a reliability goal effectively and efficiently, but do not necessarily have to reflect “best practices” without regard to implementation cost

Order No. 672 at P 328. *The proposed Reliability Standard does not necessarily have to reflect the optimal method, or “best practice,” for achieving its reliability goal without regard to implementation cost or historical regional infrastructure design. It should however achieve its reliability goal effectively and efficiently.*

The proposed PER-003-1 Reliability Standard helps the industry achieve the stated goals effectively and efficiently. The proposed standard adds a new element of “Areas of Competency” pertaining to the operation of the BPS to the requirements in the existing approved PER-003-0 Reliability Standard. A System Operator performing reliability-related tasks for the Reliability Coordinator, Transmission Operator or Balancing Authority must demonstrate at least minimum competency within the defined “Areas of Competency.” The NERC System Operator Certification Program initially assesses the Real-time System Operators’ knowledge and understanding within the defined areas. This knowledge along with the capabilities in the

defined “Areas of Competency” are then maintained and enhanced by the completion of regularly scheduled training through the PER-005-1 System Personnel Training Reliability Standard.

The SDT for NERC Project 2007-04 Certifying System Operators determined that most, if not all, System Operators performing reliability-related tasks for Reliability Coordinators, Transmission Operators and Balancing Authorities are currently NERC certified through the current FERC approved PER-003-0 Reliability Standard which demonstrates a System Operator’s minimum competency. Therefore, implementation of the proposed standard should not result in substantial cost increases to Reliability Coordinators, Transmission Operators or Balancing Authorities.

8. Proposed Reliability Standards cannot be “lowest common denominator,” i.e., cannot reflect a compromise that does not adequately protect bulk power system reliability

Order No. 672 at P 330. A proposed Reliability Standard may take into account the size of the entity that must comply with the Reliability Standard and the cost to those entities of implementing the proposed Reliability Standard. However, the ERO should not propose a “lowest common denominator” Reliability Standard that would achieve less than excellence in operating system reliability solely to protect against reasonable expenses for supporting this vital national infrastructure. For example, a small owner or operator of the Bulk-Power System must bear the cost of complying with each Reliability Standard that applies to it.

The proposed Reliability Standard PER-003-1 does not employ a “lowest common denominator.” Rather, the standard adds structure and specificity to the certification of System Operators. It requires Real-time System Operators to hold a NERC Certification that is specific to the nature of the functional tasks that they perform. The proposed standard utilizes the NERC Certification Program’s previously developed and implemented certificate hierarchy.

This hierarchy, enshrined in the proposed standard, requires that each System Operator performing Real-time reliability-related tasks demonstrate his or her competency through obtaining and maintaining a valid NERC Operator Certification. In addition, the proposed

standard limits the application of certain NERC certificates. For instance, a System Operator performing the reliability-related tasks of a Transmission Operator must possess one of the following NERC certificates: a Reliability Operator certificate; a Balancing, Interchange and Transmission Operator certificate; or, a Transmission Operator certificate. Similarly, under the proposed standard, a System Operator performing the reliability-related tasks of a Balancing Authority must possess one of the following NERC certificates: a Reliability Operator certificate; a Balancing, Interchange and Transmission Operator certificate; or a Balancing and Interchange Operator certificate.

This utilization of the NERC Certification Program’s previously developed and implemented certificate hierarchy “raises the bar” with respect to the certification and demonstration of competency required to perform the reliability-related tasks of the Reliability Coordinator, Transmission Operator and Balancing Authority Real-time System Operator personnel. As a result, this standard is not the “lowest common denominator” Reliability Standard.

9. *Proposed Reliability Standards may consider costs to implement for smaller entities but not at consequence of less than excellence in operating system reliability*

Order No. 672 at P 330. A proposed Reliability Standard may take into account the size of the entity that must comply with the Reliability Standard and the cost to those entities of implementing the proposed Reliability Standard. However, the ERO should not propose a “lowest common denominator” Reliability Standard that would achieve less than excellence in operating system reliability solely to protect against reasonable expenses for supporting this vital national infrastructure. For example, a small owner or operator of the Bulk-Power System must bear the cost of complying with each Reliability Standard that applies to it.

The proposed PER-003-1 Reliability Standard does not create or allow any differentiation in requirements based on size. All entities, small and large, are expected to comply with this standard in the same manner. The proposed PER-003-1 Reliability Standard authorizes an entity to develop the method that best suits their operation for determining a System Operator’s

minimum competency and allows the applicable entities the flexibility to utilize System Operators with one of several NERC Certificates to fill designated Real-time operating positions. Additionally, the PER-003-1 Reliability Standard removes the ambiguities in the existing regulatory approved PER-003-0 Reliability Standard related to “trainees” in Real-time operations. The proposed PER-003-1 Reliability Standard includes a footnote to explain the responsibilities of NERC Certified System Operators when non-NERC certified “trainee” personnel are performing any reliability-related task.

10. Proposed Reliability Standards must be designed to apply throughout North America to the maximum extent achievable with a single Reliability Standard while not favoring one area or approach

Order No. 672 at P 331. A proposed Reliability Standard should be designed to apply throughout the interconnected North American Bulk-Power System to the maximum extent this is achievable with a single Reliability Standard. The proposed Reliability Standard should not be based on a single geographic or regional model but should take into account geographic variations in grid characteristics, terrain, weather, and other such factors; it should also take into account regional variations in the organizational and corporate structures of transmission owners and operators, variations in generation fuel type and ownership patterns, and regional variations in market design if these affect the proposed Reliability Standard.

The proposed PER-003-1 Reliability Standard is a single standard that will be universally applicable in the portions of the United States and Canada that recognize NERC as the ERO. This universal applicability was ensured by involving SDT from various aspects, functions and responsibilities associated with maintaining reliability of the BPS. Managers, supervisors, engineers, operators and training personnel representing Regional Transmission Organizations, Independent System Operators, investor-owned utilities, and Rural Electric Associations which operate within five NERC reliability regions and a portion of Canada were involved in the development of the proposed PER-003-1 Reliability Standard. The proposed PER-003-1 Reliability Standard has been written to identify the minimum areas of competencies that

operating personnel must demonstrate to become and remain a certified operator under the Reliability Coordinator, Transmission Operator and Balancing Authority functions.

11. Proposed Reliability Standards should cause no undue negative effect on competition or restriction of the grid

Order No. 672 at P 332. As directed by section 215 of the FPA, the Commission itself will give special attention to the effect of a proposed Reliability Standard on competition. The ERO should attempt to develop a proposed Reliability Standard that has no undue negative effect on competition. Among other possible considerations, a proposed Reliability Standard should not unreasonably restrict available transmission capability on the Bulk-Power System beyond any restriction necessary for reliability and should not limit use of the Bulk-Power System in an unduly preferential manner. It should not create an undue advantage for one competitor over another.

The requirements in the proposed PER-003-1 Reliability Standard should cause no undue negative effect on competition or restriction of the grid. The proposed PER-003-1 is written to identify the minimum areas of competencies that operating personnel must demonstrate to become and remain a qualified System Operator under the Reliability Coordinator, Transmission Operator, and Balancing Authority functions. Qualified System Operators help to assure that the system is operated reliably, with a goal of keeping the transmission system available and stable. Keeping the transmission system available and stable enhances the operation and reliability of the grid and does not restrain competition or restrict transmission capability.

12. The implementation time for the proposed Reliability Standards must be reasonable

Order No. 672 at P 333. In considering whether a proposed Reliability Standard is just and reasonable, the Commission will consider also the timetable for implementation of the new requirements, including how the proposal balances any urgency in the need to implement it against the reasonableness of the time allowed for those who must comply to develop the necessary procedures, software, facilities, staffing or other relevant capability.

The proposed Implementation Plan for PER-003-1 is reasonable because it allows adequate time for functional entities to obtain the correct certifications. NERC has requested that PER-003-1 become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval (see **Exhibit B**). Although some Reliability

Coordinators, Transmission Operators or Balancing Authorities may need to obtain different certificates for some of their System Operators, industry stakeholders did not request additional time for the implementation of this standard.

13. The Reliability Standard development process must be open and fair

Order No. 672 at P 334. *Further, in considering whether a proposed Reliability Standard meets the legal standard of review, we will entertain comments about whether the ERO implemented its Commission-approved Reliability Standard development process for the development of the particular proposed Reliability Standard in a proper manner, especially whether the process was open and fair. However, we caution that we will not be sympathetic to arguments by interested parties that choose, for whatever reason, not to participate in the ERO's Reliability Standard development process if it is conducted in good faith in accordance with the procedures approved by the Commission.*

NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Reliability Standards Development Procedure* and its replacement the NERC *Standard Processes Manual*, which is incorporated into the Rules of Procedure as Appendix 3A.²² In its ERO Certification Order, FERC found that NERC's proposed rules provide for reasonable notice and opportunity for public comment, due process, openness and a balance of interests in developing Reliability Standards. The development process is open to any person or entity with a legitimate interest in the reliability of the BPS. NERC considers the comments of all stakeholders and an affirmative vote of stakeholders and the NERC Board of Trustees is required to approve a Reliability Standard for submission to FERC. The SDT developed this standard by following NERC's regulatory-approved standards development process described above.

14. Proposed Reliability Standards must balance with other vital public interests

Order No. 672 at P 335. *Finally, we understand that at times development of a proposed Reliability Standard may require that a particular reliability goal must be balanced against other vital public interests, such as environmental, social and other goals. We expect the ERO to explain any such balancing in its application for approval of a proposed Reliability Standard.*

²² NERC Rules of Procedure (2011). Available at: http://www.nerc.com/files/NERC_Rules_of_Procedure_EFFECTIVE_20110101.pdf.

The proposed PER-003-1 Reliability Standard should not affect any vital public interests beyond promoting electric system reliability. Therefore it is not necessary to balance this Reliability Standard against any other competing public interests. Compliance with this proposed PER-003-1 Reliability Standard supports preventing the instability, uncontrolled separation or cascading outages that may adversely impact the reliability of the interconnection.

15. Proposed Reliability Standard must not conflict with prior FERC Rules or Orders.

Order No. 672 at P.444. A potential conflict between a Reliability Standard under development and a Transmission Organization function, rule, order, tariff, rate schedule, or agreement accepted, approved, or ordered by the Commission should be identified and addressed during the ERO's Reliability Standard Development Process.

The proposed PER-003-1 Reliability Standard does not conflict with any other prior FERC Rules or Orders and adequately addresses the directives identified in FERC Order No. 693.

16. Proposed Reliability Standards must consider any other relevant factors

Order No. 672 at P 323. In considering whether a proposed Reliability Standard is just and reasonable, we will consider the following general factors, as well as other factors that are appropriate for the particular Reliability Standard proposed.

Order No. 672 at P 337. In applying the legal standard to review of a proposed Reliability Standard, the Commission will consider the general factors above. The ERO should explain in its application for approval of a proposed Reliability Standard how well the proposal meets these factors and explain how the Reliability Standard balances conflicting factors, if any. The Commission may consider any other factors it deems appropriate for determining if the proposed Reliability Standard is just and reasonable, not unduly discriminatory or preferential, and in the public interest. The ERO applicant may, if it chooses, propose other such general factors in its ERO application and may propose additional specific factors for consideration with a particular proposed Reliability Standard.

In the development of this standard, NERC examined this Reliability Standard and determined that no other factors warranted FERC's consideration.

c. Violation Risk Factor and Violation Severity Level Assignments

The proposed PER-003-1 Reliability Standard includes VRF and VSL assignments. The ranges of possible penalties for violations of the requirements of this standard are based upon the applicable VRFs and VSLs. Violation penalties will be administered based on the ERO Sanction Guidelines and supporting penalty determination process described in the FERC-approved NERC Sanction Guidelines, included as Appendix 4B to the NERC Rules of Procedure. Each primary requirement is assigned a VRF and a VSL. These elements support the determination of an initial value range for the Base Penalty Amount regarding violations of requirements in FERC-approved Reliability Standards, as defined in the ERO Sanction Guidelines.

Assignment of Violation Risk Factors

The SDT applied the following criteria when proposing VRFs for the requirements in the proposed PER-003-1 Reliability Standard.

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that is administrative in nature and a requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system; or, a requirement that is administrative in nature and a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. A planning requirement that is administrative in nature.²³

The standard drafting team also considered consistency with the FERC Violation Risk Factor Guidelines for setting VRFs:²⁴

Guideline (1) — Consistency with the Conclusions of the Final Blackout Report

The Commission seeks to ensure that Violation Risk Factors assigned to Requirements of Reliability Standards in these identified areas appropriately reflect their historical critical impact on the reliability of the Bulk-Power System.

In the VRF Rehearing Order, FERC listed critical areas (from the Final Blackout Report) where violations could severely affect the reliability of the Bulk-Power System:²⁵

- Emergency operations
- Vegetation management
- Operator personnel training
- Protection systems and their coordination
- Operating tools and backup facilities
- Reactive power and voltage control
- System modeling and data exchange
- Communication protocol and facilities
- Requirements to determine equipment ratings
- Synchronized data recorders
- Clearer criteria for operationally critical facilities
- Appropriate use of transmission loading relief.

Guideline (2) — Consistency within a Reliability Standard

The Commission expects a rational connection between the sub-Requirement Violation Risk Factor assignments and the main Requirement Violation Risk Factor assignment.

Guideline (3) — Consistency among Reliability Standards

²³ These three levels of risk are defined by NERC and approved by FERC in the *Order on Violation Risk Factors*, 119 FERC ¶61,145 at P9 (May 18, 2007) (“VRF Rehearing Order”), and the *Order on Compliance Filing*, 121 FERC ¶61,179 at Appendix A (November 16, 2007).

²⁴ See VRF Rehearing Order.

²⁵ *Id.* at n. 15.

The Commission expects the assignment of Violation Risk Factors corresponding to Requirements that address similar reliability goals in different Reliability Standards would be treated comparably.

Guideline (4) — Consistency with NERC’s Definition of the Violation Risk Factor Level

Guideline (4) was developed to evaluate whether the assignment of a particular Violation Risk Factor level conforms to NERC’s definition of that risk level.

Guideline (5) — Treatment of Requirements that Co-mingle More Than One Obligation

Where a single Requirement co-mingles a higher risk reliability objective and a lesser risk reliability objective, the VRF assignment for such Requirements must not be watered down to reflect the lower risk level associated with the less important objective of the Reliability Standard.

The following discussion addresses how the SDT considered FERC’s VRF Guidelines 2 through 5.²⁶

There are three requirements in the proposed PER-003-1 Reliability Standard:

Requirement R1 - Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate.

1.1. Areas of Competency

- 1.1.1. Resource and demand balancing
- 1.1.2. Transmission operations
- 1.1.3. Emergency preparedness and operations
- 1.1.4. System operations
- 1.1.5. Protection and control

²⁶ The team chose not to utilize FERC’s VRF Guideline 1, in assigning VRFs because Guideline 1 identifies a list of topics that encompass nearly every topic within the purview of NERC’s Reliability Standards and implies that these requirements should be assigned a “High” VRF.

1.1.6. Voltage and reactive

1.1.7. Interchange scheduling and coordination

1.1.8. Interconnection reliability operations and coordination

VRF for PER-003-1, Requirement R1: High

FERC Guideline 2	This standard utilizes sub-requirements to identify the minimum competencies and the type of NERC Certificate a System Operator must possess. The VRF for this requirement is consistent with others in the standard with regard to relative risk.
FERC Guideline 3	This requirement is consistent with the PER-005 Training Standard. As this requirement addresses who should be allowed to operate the Real-time BES, the subject of certification and training need to go hand-in-hand. As such, it is appropriate that this requirement share the same VRF of High.
FERC Guideline 4	This requirement is related to the Real-time operation of the BES during both normal and abnormal situations. A System Operator that has not shown at least the minimum competency by passing the required NERC Certification Exam could issue orders that could result in instability, separation or cascading failures. As such, the VRF is required to be High.
FERC Guideline 5	This requirement does not co-mingle reliability objectives.

Requirement R2 - Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:

2.1. Areas of Competency

2.1.1. Transmission operations

2.1.2. Emergency preparedness and operations

2.1.3. System operations

2.1.4. Protection and control

2.1.5. Voltage and reactive

2.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator

VRF for PER-003-1, Requirement R2: High

FERC Guideline 2	This standard utilizes sub-requirements to identify the minimum competencies and the type of NERC Certificate a System Operator must possess. The VRF for this requirement is consistent with others in the standard with regard to relative risk.
FERC Guideline 3	This requirement is consistent with the PER-005 Training Standard. As this requirement addresses who should be allowed to operate the Real-time BES, the subject of certification and training need to go hand-in-hand. As such, it is appropriate that this requirement share the same VRF of High.
FERC Guideline 4	This requirement is related to the Real-time operation of the BES during both normal and abnormal situations. A System Operator that has not shown at least the minimum competency by passing the required NERC Certification Exam could issue orders that could result in instability, separation or cascading failures. As such, the VRF is required to be High.
FERC Guideline 5	This requirement does not co-mingle reliability objectives.

Requirement R3 - Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:

3.1. Areas of Competency

3.1.1. Resources and demand balancing

3.1.2. Emergency preparedness and operations

3.1.3. System operations

3.1.4. Interchange scheduling and coordination

3.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator

VRF for PER-003-1, Requirement R3: High

FERC Guideline 2	This standard utilizes sub-requirements to identify the minimum competencies and the type of NERC Certificate a System Operator must possess. The VRF for this requirement is consistent with others in the standard with regard to relative risk.
FERC Guideline 3	This requirement is consistent with the PER-005 Training Standard. As this requirement addresses who should be allowed to operate the Real-time BES, the subject of certification and training need to go hand-in-hand. As such, it is appropriate that this requirement share the same VRF of High.
FERC Guideline 4	This requirement is related to the Real-time operation of the BES during both normal and abnormal situations. A System

	Operator that has not shown at least the minimum competency by passing the required NERC Certification Exam could issue orders that could result in instability, separation or cascading failures. As such, the VRF is required to be High.
FERC Guideline 5	This requirement does not co-mingle reliability objectives.

Violation Severity Levels

The following discussion addresses the guidelines used by the SDT to develop the VSLs for the proposed standard. This discussion also presents an analysis of how the VSLs meet the FERC VSL Guidelines:²⁷

Guideline 1: Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance

Compare the VSLs to any prior Levels of Non-compliance and avoid significant changes that may encourage a lower level of compliance than was required when Levels of Non-compliance were used.

Guideline 2: Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties

A violation of a “binary” type requirement must be a “Severe” VSL.

Do not use ambiguous terms such as “minor” and “significant” to describe noncompliant performance.

Guideline 3: Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement

VSLs should not expand on what is required in the requirement.

Guideline 4: Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations

. . . unless otherwise stated in the requirement, each instance of non-compliance with a requirement is a separate violation. Section 4 of the Sanction Guidelines states that

²⁷ *Order on Violation Severity Levels Proposed by the Electric Reliability Organization*, 123 FERC ¶ 61, 284 (2008) at P 19-36.

assessing penalties on a per violation per day basis is the “default” for penalty calculations.

Requirement R1

Proposed Lower VSL	N/A
Proposed Moderate VSL	N/A
Proposed High VSL	N/A
Proposed Severe VSL	The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R1.
FERC VSL G1 Discussion	No longer applicable given significant changes in standard structure.
FERC VSL G2 Discussion	The VSL is written as a pass/fail VSL, and it has been set at the “Severe” level, meeting guideline 2A. The VSL is written in clear and unambiguous language, meeting Guideline 2B.
FERC VSL G3 Discussion	The VSL aligns with the language of the requirement, and does not add to nor take away from it.
FERC VSL G4 Discussion	The VSL is based on a single violation of the requirement.

Requirement R2

Proposed Lower VSL	N/A
Proposed Moderate VSL	N/A
Proposed High VSL	N/A
Proposed Severe VSL	The Transmission Operator failed to staff each Real-time operating position performing Transmission Operator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R2, Part 2.2.
FERC VSL G1 Discussion	No longer applicable given significant changes in standard structure.
FERC VSL G2 Discussion	The VSL is written as a pass/fail VSL, and it has been set at the “Severe” level, meeting guideline 2A. The VSL is written in clear and unambiguous language, meeting Guideline 2B.
FERC VSL G3 Discussion	The VSL aligns with the language of the requirement, and does not add to nor take away from it.
FERC VSL G4 Discussion	The VSL is based on a single violation of the requirement.

Requirement R3

Proposed Lower VSL	N/A
Proposed Moderate VSL	N/A

Proposed High VSL	N/A
Proposed Severe VSL	The Balancing Authority failed to staff each Real-time operating position performing Balancing Authority reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R3, Part 3.2.
FERC VSL G1 Discussion	No longer applicable given significant changes in standard structure.
FERC VSL G2 Discussion	The VSL is written as a pass/fail VSL, and it has been set at the “Severe” level, meeting guideline 2A. The VSL is written in clear and unambiguous language, meeting Guideline 2B.
FERC VSL G3 Discussion	The VSL aligns with the language of the requirement, and does not add to nor take away from it.
FERC VSL G4 Discussion	The VSL is based on a single violation of the requirement.

c. Local Transmission Control Center Personnel

The SDT considered whether training requirements for local transmission control center operator personnel should be established as part of PER-003-1. Local Control Center Operator Personnel were determined to be beyond the scope of the Standard Authorization Request (“SAR”) for this standard. This issue is the subject of an earlier FERC directive and will be addressed by NERC in the future in Project 2010-01 — Support Personnel Training.²⁸

V. SUMMARY OF THE RELIABILITY STANDARD DEVELOPMENT PROCEEDINGS

The SAR for proposed Reliability Standard PER-003-1 was initially developed and presented to NERC for posting on July 7, 2007. The SAR drafting team was formed in August 2007. The SAR was posted for two 30-day comment periods. The first comment period was from July 17, 2007 through August 15, 2007. Based on industry stakeholder comments received, the drafting team excluded transmission operators at local control centers and generator operators from those entities that were required to be certified. In addition the drafting team removed the

²⁸ FERC directed NERC to “develop a Reliability Standard, through the ERO’s Reliability Standards development process, conducted pursuant to its Standard Processes Manual, establishing training requirements for local transmission control center operator personnel.” *System Personnel Training Reliability Standards*, 133 FERC ¶ 61,159 (2010)(“Order No. 742”) at P 17.

Interchange Authority, Transmission Owner, Generator Owner and Generator Operator from the applicable functions section of the draft SAR. The revised SAR was posted for a second 30-day comment period from January 2, 2008 through January 31, 2008. Based on industry stakeholder comments received, no further modifications to the SAR were necessary and NERC Project 2007-04 — Certifying System Operators was initiated. The Project 2007-04 – Certifying System Operators SDT was formed in June 2008.

The SDT posted the draft PER-003-1 Reliability Standard for two public comment periods. The first draft standard was posted for an initial 30-day comment period from October 21, 2009 through November 20, 2009. Forty-one sets of comments were submitted in response to the posting, including comments from more than 150 individuals representing over 65 different companies from nine of the ten industry segments. Responding to industry stakeholder critiques the drafting team modified the purpose statement and requirements of the proposed standard to provide additional clarity. The drafting team also added a footnote clarifying that a trainee that is not NERC certified must work under the direct supervision of a NERC certified System Operator and that the NERC certified System Operator would bear ultimate responsibility for the performance of the reliability-related task. Additionally, several of the industry stakeholders raised objections in three areas that the SDT chose to override:

- 1) The inclusion of minimum competencies within the proposed standard. The SDT explained to the objectors that the proposed standard is required to address the FERC directive from Order 693 that the standard must identify the minimum competencies operating personnel must demonstrate to be certified.²⁹
- 2) Including additional language to clarify the role of continuing education hours in maintaining a valid NERC certificate. The SDT declined to add a reference to CEHs

²⁹ Order No. 693 at P 1408.

in the standard. The team explained that they believed that a System Operator should maintain his or her certification by the method that the Personnel Certification Governance Committee deems appropriate (currently through earning continuing education hours).

- 3) That the VSLs should be graduated. The SDT explained that because the requirements were written in a pass/fail (binary) format, the NERC and FERC VSL guidelines require that binary requirements must be designated “Severe.”

The second draft of the standard was posted for a 45-day public comment period and successive ballot from August 10, 2010 through September 24, 2010. NERC received 33 sets of comments from more than 87 different individuals from approximately 32 companies representing eight of the ten Industry Segments. The majority of the commenters held concerns in three areas:

- 1) The inclusion of minimum competencies within the standard. In response the SDT reiterated their response from the first posting that NERC is required to address the FERC directive from Order 693 that stated that the standard must identify the minimum competencies operating personnel must demonstrate to be certified.³⁰
- 2) The use of the term “System Operator” within the standard because the NERC definition contained the “Generator Operator” function. In response, the SDT explained that although the NERC definition for “System Operator” includes “Generation Operator” within the parenthetical, the proposed PER-003-1 Reliability Standard clearly states that the standard only applied to the Reliability Coordinator, Transmission Operator and Balancing Authority.

³⁰ See Exhibit C, Consideration of Stakeholder Comments.

3) That the VSLs should be graduated. In response, the SDT reiterated their response from the first posting that because the requirements were written in a pass/fail (binary) format, the NERC and FERC VSL guidelines require a “Severe” VSL designation. Based on the second round of stakeholder comments, the SDT modified the footnote and Measure M1 to provide further clarity.

The team then finalized the proposed Per-003-1 Reliability Standard, and presented the standard to the NERC Standards Committee for its approval for balloting. NERC began its initial ballot of the draft PER-003-1 Reliability Standard on September 14, 2010. The initial ballot achieved a quorum of 92.73% and a weighted-segment approval of 79.17%, achieving the requisite two-thirds weighted-segment vote needed for approval.

Following the successive ballot that ended on September 24, 2010, the SDT made conforming changes to the draft standard in response to stakeholder comments. The changes clarified the language in the proposed standard, but did not modify the scope, intent or applicability of any of the requirements. Therefore the modifications were not considered “significant,” and did not require a full re-posting and balloting period. Then a ten-day re-circulation ballot was initiated on December 2, 2010. On December 13, 2010, the ballot resulted in an affirmative vote, achieving a quorum of 95.50% and a weighted segment approval of 86.91%. On February 17, 2011, the NERC Board of Trustees unanimously approved the proposed PER-003-1 Reliability Standard.

VI. CONCLUSION

For the reasons stated above, NERC respectfully requests that FERC approve the proposed PER-003-1 Reliability Standard and the two proposed definitions included in **Exhibit A** and the associated Implementation Plan included in **Exhibit B** to this filing in accordance with

Section 215(d)(1) of the FPA and Part 39.5 of FERC's regulations. NERC requests that these approvals be made effective in accordance with the effective date provisions set forth in the proposed PER-003-1 Reliability Standard.

Respectfully submitted,

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/s/ Andrew M. Dressel

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CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 29th day of April, 2011.

/s/ Andrew M. Dressel

Andrew M. Dressel

*Attorney for North American Electric
Reliability Corporation*

Exhibit A

**Proposed Reliability Standard PER-003-1
(clean and redline)**

A. Introduction

1. **Title:** **Operating Personnel Credentials**
2. **Number:** **PER-003-1**
3. **Purpose:** To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System.
4. **Applicability:**
 - 4.1. Reliability Coordinator
 - 4.2. Transmission Operator
 - 4.3. Balancing Authority
5. **Effective Date:**
 - 5.1. In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after Board of Trustees adoption.

B. Requirements

- R1.** Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]

1.1. Areas of Competency

- 1.1.1. Resource and demand balancing
- 1.1.2. Transmission operations
- 1.1.3. Emergency preparedness and operations
- 1.1.4. System operations
- 1.1.5. Protection and control
- 1.1.6. Voltage and reactive
- 1.1.7. Interchange scheduling and coordination
- 1.1.8. Interconnection reliability operations and coordination

¹ Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

2.1. Areas of Competency

- 2.1.1. Transmission operations
- 2.1.2. Emergency preparedness and operations
- 2.1.3. System operations
- 2.1.4. Protection and control
- 2.1.5. Voltage and reactive

2.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator

R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

3.1. Areas of Competency

- 3.1.1. Resources and demand balancing
- 3.1.2. Emergency preparedness and operations
- 3.1.3. System operations
- 3.1.4. Interchange scheduling and coordination

3.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator

C. Measures

M1. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions

¹ Non-NERC certified personnel performing any reliability-related task of an operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3):

- M1.1** A list of Real-time operating positions.
- M1.2** A list of System Operators assigned to its Real-time operating positions.
- M1.3** A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency.
- M1.4** Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Authority

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

1.2. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.3. Data Retention

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall keep data or evidence to show compliance for three years or since its last compliance audit, whichever time frame is the greatest, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Reliability Coordinator, Transmission Operator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent records.

1.4. Additional Compliance Information

None.

2.0 Violation Severity Levels

R#	Lower VSL	Medium VSL	High VSL	Severe VSL
R1				The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R1.
R2				The Transmission Operator failed to staff each Real-time operating position performing Transmission Operator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R2, Part 2.2.
R3				The Balancing Authority failed to staff each Real-time operating position performing Balancing Authority reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R3, Part 3.2.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1	February 17, 2011	Complete revision under Project 2007-04	Revision
1	February 17, 2011	Adopted by the Board of Trustees	

Exhibit B

Implementation Plan for the Proposed PER-003-1 Reliability Standard

Implementation Plan for PER-003-1 — Operating Personnel Credentials Standard

Prerequisite Approvals

There are no other reliability standards or Standard Authorization Requests (SARs), in progress or approved, that must be implemented before this standard can be implemented.

Modified Standards

PER-003-0 should be retired when PER-003-1 becomes effective.

Compliance with Standards

Once this standard becomes effective, the responsible entities identified in the applicability section of the standard must comply with the requirements. These include:

- Reliability Coordinator
- Transmission Operator
- Balancing Authority

Proposed Effective Date

Compliance with PER-003-1 shall be implemented as follows:

- In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter, twelve months after Board of Trustees adoption.

Exhibit C

Consideration of Stakeholder Comments

Project 2007-04 Certifying System Operators

Related Files

Status:

Approved by the Board of Trustees on February 17, 2011.

Purpose/Industry Need:


This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

The standard will be revised to address the directives from FERC Order 693 and industry comments from Version 0.

The standard will also be revised to conform to the latest version of the Reliability Standards Development Procedure and the ERO Sanctions Guidelines. The standard drafting team will apply the Reliability Standard Review Guidelines when modifying the standard.

Draft	Action	Dates	Results	Consideration of Comments
Draft 3 PER-003-1 Clean Redline to last posting Implementation Plan Clean Supporting Materials PER-003-0	Recirculation Ballot Vote>> Info	12/02/10 - 12/13/10 (closed)	Full Record	Consideration of Comments (7)
Draft 2 PER-003-1 Clean Redline to first posting Implementation Plan Clean Redline to	Initial Ballot & Non-Binding VRF/VSL Poll Vote>> Info	09/14/10 - 09/24/10	Summary Full Record Non-Binding Poll Results	Non-Binding Poll Consideration of Comments (6)
	Ballot Pool and Pre-ballot	Ballot Pool 08/10/10 -		Initial Ballot Consideration of

<p>first posting</p> <p>Supporting Materials: Comment Form (Word)</p>	<p>Window (with Comment Period)</p> <p>Submit Comments>></p> <p>Join>> Info</p>	<p>09/09/10</p> <p>Comment Period 08/10/10 - 09/24/10</p>	<p>Comments Received</p>	<p>Comments(5)</p> <hr/> <p>Consideration Of comments on Second Draft (4)</p>
<p>Draft 1 of Standard</p> <p>PER-003-1</p> <p>Implementation Plan</p> <p>Supporting Materials: Comment Form (Word) PER-003-0 for Reference</p>	<p>Comment Period</p> <p>Info</p> <p>Submit Comments>></p>	<p>10/21/09 - 11/20/09 (closed)</p>	<p>Comments Received</p>	<p>Consideration of Comments (3)</p>
<p>Nominations for System Operator Certification Standard Drafting Team</p>	<p>Nomination Period</p> <p>Info</p> <p>Submit Nomination</p>	<p>04/24/08 – 05/07/08 (closed)</p>		
<p>Draft SAR Version 2</p> <p>Clean Redline to last posting</p>	<p>Comment Period</p> <p>Info</p> <p>Submit Comments</p>	<p>01/02/08 – 01/31/08 (closed)</p>	<p>Comments Received</p>	<p>Consideration of Comments (2)</p>
<p>SAR for Certifying System Operators</p> <p>Draft SAR Version 1</p>	<p>Comment Period</p> <p>Info</p> <p>Submit Comments</p>	<p>07/17/07 – 08/15/07 (closed)</p>	<p>Comments Received</p>	<p>Consideration of Comments (1)</p>

<p>SAR Drafting Team Nominations for Certifying System Operators</p>	<p>Nomination Period</p> <p>Info(2) Submit Nomination(1)</p>	<p>07/17/07 – 07/30/07 (closed)</p>		
<p>To download a file click on the file using your right mouse button, then save it to your computer in a directory of your choice.</p>				
<p>Documents in the PDF format require use of the Adobe Reader® software. Free Adobe Reader® software allows anyone view and print Adobe Portable Document Format (PDF) files. For more information download the Adobe Reader User Guide.</p>				

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

The Certifying System Operators SAR drafting team thanks all commenters who submitted comments on the first draft of the Certifying System Operators SAR. This SAR was posted for a 30-day public comment period from July 17 through August 15, 2007. The drafting team asked stakeholders to provide feedback on the SAR through a special SAR Comment Form. There were 29 sets of comments, including comments from more than 80 different people from more than 50 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received and FERC Order 693, the drafting team made the following changes to the SAR:

- Removed language about the certification of the generator operators and transmission operators at local control centers.
- Removed the following functions from the applicable functions section of the SAR: Interchange Authority, Transmission Owner, Generator Owner, and Generator Operator.

The Certifying System Operators SAR Drafting Team is recommending the SAR be approved as revised above and that the SAR move forward to standard drafting.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures: <http://www.nerc.com/standards/newstandardsprocess.html>.

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

The Industry Segments are:

- 1 – Transmission Owners
- 2 – RTOs, ISOs
- 3 – Load-serving Entities
- 4 – Transmission-dependent Utilities
- 5 – Electric Generators
- 6 – Electricity Brokers, Aggregators, and Marketers
- 7 – Large Electricity End Users
- 8 – Small Electricity End Users
- 9 – Federal, State, Provincial Regulatory or other Government Entities
- 10 – Regional Reliability Organizations, Regional Entities

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Anita Lee (G4)	Alberta Electric System Operator		✓										
2.	William J. Smith	Allegheny Power	✓											
3.	Anita Lee	Alberta Electric System Operator		✓										
4.	Jeffrey V. Hackman	Ameren	✓											
5.	Jason Shaver	American Transmission Co.	✓											
6.	Michael Scott	APS Power Operations	✓											
7.	Dave Rudolph (G6)	Basin Electric Power Coop.	✓		✓			✓	✓					
8.	Tony Krosky	Brazos Electric Power Coop., Inc.	✓											
9.	Brent Kingsford (G4)	California ISO		✓										
10.	Brad Calhoun	CenterPoint Energy	✓											
11.	Alan Gale	City of Tallahassee (TAL)						✓						
12.	Edwin Thompson (G1)	ConEd	✓											
13.	Michael Gildea (G1)	Constellation Energy						✓						
14.	Jeanne Kurzynowski (G5)	Consumers Energy			✓	✓								
15.	Greg Mason (G5)	Dynegy						✓						
16.	Wayne Mitchell	Entergy Services, Inc.	✓											
17.	William Franklin	Entergy Services, Inc. SPO							✓					
18.	Jerry Stout	Entergy Services, Inc. SPO							✓					
19.	Steve Myers (G4)	ERCOT		✓										
20.	W. Vann Weldon	ERCOT, Inc.												✓
21.	Larry Hartley (G2)	FE Solutions	✓		✓			✓	✓					
22.	Eric Bryant (G2)	FE Solutions Assets Utilization	✓		✓			✓	✓					

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
23.	Jim Eckels (G5)	FirstEnergy	✓											
24.	David Folk (G2)	FirstEnergy Corp.	✓		✓			✓	✓					
25.	Joe Knight (G5) (G6)	Great River Energy	✓											
26.	Dick Pursley (G5)	Great River Energy	✓											
27.	David Kiguel (G1) (G3)	Hydro One Networks, Inc.		✓										
28.	Tom Irvine (G3)	Hydro One Networks, Inc.	✓											
29.	Rob MacDonald (G3)	Hydro One Networks, Inc.	✓											
30.	Chris Cooper (G3)	Hydro One Networks, Inc.	✓											
31.	Archie Kotopoulos (G3)	Hydro One Networks, Inc.	✓											
32.	Roger Champagne (G1)	Hydro Quebec TransEnergie	✓											
33.	Ron Falsetti (I) (G1) (G4)	IESO		✓										
34.	Kathleen Goodman (I) (G1)	ISO New England		✓										
35.	Matt Goldberg (G4)	ISO New England		✓										
36.	Brian Thumm	ITC Transco	✓											
37.	Jim Cyrulewski (G5)	JDRJC Associates										✓		
38.	Jay Chase	KAMO Power												
39.	Michael Gammon	Kansas City Power & Light (KCPL)	✓											
40.	Eric Ruskamp (G6)	Lincoln Electric System							✓					
41.	Donald Nelson (G1)	MA/DUP-EPD											✓	
42.	Joseph DePoorter (G5)	Madison Gas & Electric				✓								
43.	Craig McLean	Manitoba Hydro	✓		✓	✓	✓							
44.	Jason Marshall (G5) (G6)	Midwest ISO, Inc.		✓										
45.	Terry Bilke (G6)	Midwest ISO, Inc.		✓										
46.	William Phillips (G4)	Midwest ISO, Inc.		✓										
47.	Michael Brytowski (G6)	Midwest Reliability Organization												✓
48.	Laura Elsenpeter (G6)	Midwest Reliability Organization												✓
49.	Mark Pinney (G6)	Minnesota Power	✓		✓			✓	✓					
50.	Mac Bohman (G6)	Minnesota Power	✓		✓			✓	✓					
51.	Carol Gerou (G6)	Minnesota Power	✓		✓			✓	✓					
52.	Bill DeVries (G1)	New York ISO		✓										
53.	Jim Castle (G4)	New York ISO		✓										
54.	Diane Barney (G1)	New York PSC											✓	
55.	Michael Shiovone (G1)	NGrid	✓											
56.	Mike Rinalli (G1)	NGrid	✓											

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
57.	Rick White (G6)	Northeast Utilities	✓											
58.	Guy V. Zito (G1)	NPCC												✓
59.	Brian Hogue (G1)	NPCC												✓
60.	Ralph Rufrano (G1)	NYPA	✓											
61.	Al Adamson (G1)	NYSRC												✓
62.	Stan Southers	Oncor Electric Delivery	✓											
63.	Ellis Rankin	Oncor Electric Delivery	✓											
64.	Larry Larson (G5)	Otter Tail Power Company	✓											
65.	Alicia Daugherty (G4)	PJM		✓										
66.	Phil Riley (G7)	Public Service Commission of SC											✓	
67.	Mignon L. Clyburn (G7)	Public Service Commission of SC											✓	
68.	Elizabeth B. Fleming (G7)	Public Service Commission of SC											✓	
69.	G. O'Neal Hamilton (G7)	Public Service Commission of SC											✓	
70.	John E. Howard (G7)	Public Service Commission of SC											✓	
71.	Randy Mitchell (G7)	Public Service Commission of SC											✓	
72.	C. Robert Moseley (G7)	Public Service Commission of SC											✓	
73.	David A. Wright (G7)	Public Service Commission of SC											✓	
74.	Mike Pfeister	Salt River Project (SRP)	✓											
75.	Marc Butts (G8)	Southern Co. Services, Inc.	✓											
76.	James Ford (G8)	Southern Co. Services, Inc.	✓											
77.	Jim Busbin (G8)	Southern Co. Services, Inc.	✓											
78.	J.T. Wood (G8)	Southern Co. Services, Inc.	✓											
79.	Roman Carter (G8)	Southern Co. Services, Inc.	✓											
80.	Gary Gorham (G8)	Southern Co. Services, Inc.	✓											
81.	Jim Griffith (G8)	Southern Co. Services, Inc.	✓											
82.	Charles Yeung (G4)	Southwest Power Pool		✓										
83.	Mike Pelligrini (G1)	United Illuminating	✓											
84.	Karl A. Bryan	US Army Corps of						✓						

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
		Engineers												
85.	Michael J. Roluti	US Bureau of Reclamation					✓							
86.	Jim Haigh (G6)	Western Area Power Admin.	✓					✓						
87.	Pam Oreschnick (G6)	Xcel	✓		✓		✓	✓						

I – Indicates that individual comments were submitted in addition to comments submitted as part of a group

G1 – NPCC Standards Review Committee (NPCC RSC)

G2 – FirstEnergy Corp. (FE)

G3 – Hydro One Networks, Inc.

G4 – ISO/RTO Council

G5 – Midwest ISO Stakeholders (MISO)

G6 – Midwest Reliability Organization (MRO)

G7 – Public Service Commission of South Carolina (PSC SC)

G8 – Southern Company Transmission (SOCO)

Index to Questions, Comments, and Responses

1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.7

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area. 12

3. Do you agree with the applicability of the proposed standard action? If not, what function entities do you think need to be added or delete? 23

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify here. 32

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here. 34

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here. 36

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Summary Consideration:

Most commenters agreed that there is a reliability-related reason for the proposed SAR. Some of the commenters that did not agree indicated that certification of local control center operators should not be required and others indicated that the standard needs to clearly identify who needs to be certified.

Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function. The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.

Question #1			
Commenter	Yes	No	Comment
City of Tallahassee		<input checked="" type="checkbox"/>	The standard, as it exists today, provides adequate reliability to the Bulk Electric System. The changes are needed from an administrative standpoint to conform to the new format and processes directed by FERC. Clarity is needed to address the Interpretation Request and the Version 0 comments.
<p>Response: The CSO SAR Drafting Team is not changing the applicability of the existing standard. The CSO Standard Drafting Team will address FERC Order 693 directives, as well as incorporate the necessary content, structure, and language to comply with the NERC standards process. The CSO Standard Drafting Team will also address V0 comments that are captured in the SAR.</p>			
ISO/RTO Council		<input checked="" type="checkbox"/>	Certification of Local Control Center Operators is not required if they have no decisional making authority over Bulk Power System facilities and are implementing directives of a certified Operator.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
NPCC RSC ISO New England		<input checked="" type="checkbox"/>	Certification of Local Control Center Operators should not be required if they have no decisional making authority over Bulk Power System facilities. Directives from the FERC Order are centered around concerns regarding what are core competencies. These are strictly training issues and what requirements constitute proper and sufficient training.

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
			<p>If this SAR was developed to address the FERC directive then it should be focusing only on what the core competencies should be. There is another Drafting Team working on Transmission Operator Training standard(s) and clarification could also be provided regarding core competencies and coordinated with that team to ensure the FERC directives are met.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
Hydro One	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>There is a need to clearly define who needs to be certified. At the moment within the industry there is a difference in understanding and credentials across the board and there is no consistency. Some TOs' staff are certified while others are not, same for TOPs. At some locations they certify the Senior operator only. A unified approach is necessary for certification.</p> <p>There is an opportunity for the drafting team to clarify issues related to any type and level of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactive real-time independent actions, (c) switching operations under the supervision of certified supervisors, or (d) responding to changes in equipmnt status and system conditions in real time (i.e. alarms, trips, etc.).</p> <p>We believe TOP staff who are at the board and able to control devices that affect reliability, should be certified. This should be the case regardless of whether they answer to a RC or a senior position. They should understand how their operations affect reliability. For example, there may be emergencies that require independent action, loss of communication, etc.</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
			<p>Certification of Local Control Center Operators should not be required only if they have no decision making authority over Bulk Power System facilities. Directives from the FERC Order are centered around concerns regarding what are core competencies. These are strictly training issues and what requirements constitute proper and sufficient training. If this SAR was developed to address the FERC directive then it should be focusing only on what the core competencies should be. There is another Drafting Team working on Transmission Operator Training standard(s) and clarification could also be provided regarding core competencies and coordinated with that team to ensure the FERC directives are met.</p>
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>The CSO SAR Drafting Team disagrees that this standard should address support personnel certification. NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
IESO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Operating Personnel certification is critical to maintaining the reliability of the system but at the same time certification of Local Control Center Operators should not be required if they have no decision making authority over Bulk Power System facilities.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
<p>the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ATC	<input checked="" type="checkbox"/>		<p>ATC agrees that there is a reliability related need for NERC to expand the certification requirements for "operating positions" that have primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System. The expansion must include local transmission control center "operating positions" that meet requirement 1.1.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Brazos	<input checked="" type="checkbox"/>		<p>Need to clarify some requirements. For example switching operations under the supervision of certified supervisors.</p>
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>			
Entergy	<input checked="" type="checkbox"/>		<p>I'm note sure that all TO need to be NERC Certified. In our case we have sub-transmission dispatches that monitor and address switching at the local level and receive operational directions from our Transmission Operators. We recommend that certification requirements for local control centers not be developed.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>			
Ameren	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
APS Power Operations	<input checked="" type="checkbox"/>		
CenterPoint Energy	<input checked="" type="checkbox"/>		
KAMO Power	<input checked="" type="checkbox"/>		
Allegheny Power	<input checked="" type="checkbox"/>		
Oncor	<input checked="" type="checkbox"/>		
US ACE	<input checked="" type="checkbox"/>		
US BRC	<input checked="" type="checkbox"/>		
Entergy SPO	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
FirstEnergy	<input checked="" type="checkbox"/>		
ITC Transco	<input checked="" type="checkbox"/>		
KCPL	<input checked="" type="checkbox"/>		
MISO Stakeholders	<input checked="" type="checkbox"/>		
MRO	<input checked="" type="checkbox"/>		
Northeast Utilities	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
SRP	<input checked="" type="checkbox"/>		
SOCO	<input checked="" type="checkbox"/>		
Manitoba Hydro	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Summary Consideration:

Almost half of the comments did not agree with the scope of the proposed SAR, suggesting that the certification credentials should not be established for local control center operators. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.

Question #2			
Commenter	Yes	No	Comment
MRO		<input checked="" type="checkbox"/>	<p>1. In the SAR detailed description (second paragraph which starts with the text "During 2006, the standards staff received a request ..."), there is a sentence which states "the certification requirements for local transmission control center operators and local generation control center operators need to be identified and then the standard needs to be modified to address their certification." In the FERC Final Order 693 dated 03/16/07, paragraph 1407 (on page 372) disagrees with this purposed methodology since the commission was persuaded that a requirement of this nature would be too burdensome on labor relations and labor rention issues.</p> <p>2. The MRO strongly recommends that the SDT take a hard look at which type of personnel will require certification and to what level. The MRO further recommends that certification is established by functions that are performed by personnel. For example, an engineer performing a next day transmission security study to meet NERC IRO-004 standard should be required to be certified as an Reliability Coordinator operator.</p> <p>3. In this standard (NERC PER-003), measure 1.2 should be included in the requirement so that it is not an exception for the requirement.</p> <p>4. The MRO requests clarification on how competences for each different operating classification will be identified?</p>
<p>Response: 1. The CSO SAR Drafting team removed this language from the SAR.</p> <p>2. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
<p>Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>3. M1.2 is being addressed by Project 2006-004 Back-up Facilities, which is revising EOP-008. (http://www.nerc.com/~filez/standards/Backup_Facilities.html)</p> <p>4. In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
MISO Stakeholders		<input checked="" type="checkbox"/>	<p>The applicability of this Standard should not be extended to include Generator Owners or Generator Operators. Generator Owners own and maintain generation facilities. They do not operate generation facilities. Generation Operators operate generation facilities.</p> <p>This Standard should not be extended to include Generator Operators in total. Many positions that routinely operate generating units are staffed by long-tenured union Control Room Operators in Plants who take directions from a centralized Generation Control Center and/or the local RTO/ISO. To require certification of these personnel would be analogous to requiring the certification of the outside field force of a Transmission Operator, including positions that operate and switch electric transmission lines.</p> <p>Many of the VO industry comments are no longer relevant and confusing. For instance many refer to the former operating policies. These policies are retired and thus those comments should be ignored.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The CSO Standard Drafting Team will review and address the VO industry comments as part of the standards development effort.</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
Ameren		<input checked="" type="checkbox"/>	New certification credentials should not be established for LCC operators. To the extent they perform BA or TO duties under authority of an ISO/RTO, they should have the same credentials so that they can understand and appreciate their actions in context of the greater system need. Additionally, to the extent that they have a broader understanding they will be able to offer additional pertinent information to the ISO/RTO operator which may affect his/her decision but was more obvious to the LCC operator. Additionally, the blackout and subsequent events have shaped the new standards and "experience" in the case of "grandfathered" operators is a poor substitute for certification in today's operating climate. Grandfathering should not be part of certification.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p>			
CenterPoint Energy		<input checked="" type="checkbox"/>	In FERC Order No. 693 paragraph 1407, the Commission states that it "is persuaded not to require generator operators and transmission operators at local control centers to be NERC Certified at this time"; however, this SAR proposes to certify local control center operators. It appears that the SAR seeks to expand the FERC directive in paragraph 1409 of Order No. 693 beyond what FERC intends. There is no benefit to including local control center operators in the NERC certification process, which is more applicable to an entity with the responsibility "for operating a reliable Bulk Electric System." In addition, including local control center operators in PER-003 might impose an unnecessary financial burden without benefit to reliability.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
City of Tallahassee		<input checked="" type="checkbox"/>	The term "scope" is not used in the SAR. Is this supposed to be the "Purpose", "Industry Need", Brief Description", "Detailed Description", or "Background Information"? The Detailed Description indicates that this SAR will address which "system operators" needs to be certified. I am okay with that "scope", but am not okay if it delves more deeply into who should be NERC certified.
<p>Response: The CSO SAR Drafting Team intended the "scope" of the SAR to include the elements that are included in the SAR, which are captured in the Purpose, Industry Need, Brief Description, and the Reliability Functions sections. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html.</p>			
IESO		<input checked="" type="checkbox"/>	<p>The scope should not be extended to requirements for certification of local control center operators.</p> <p>FERC's directives in Order 693 deal with competencies of operating personnel - these are training issues and should not be mixed up with operating personnel certification. The directives can be better addressed in coordination with another SDT - Transmission Operator Training Standards.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
ISO New England		<input checked="" type="checkbox"/>	The scope should be limited to competencies required for operators and should not be extended to requirements for certification of local control center operators; extending certification requirements beyond the RC, BA and TOP goes beyond the FERC directive.

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
NPCC RSC		<input checked="" type="checkbox"/>	<p>The scope should be limited to competencies required for operators and should not be extended to requirements for certification of local control center operators and this "THOSE" should not be addressed in this standard. Extending certification requirements beyond the RC, BA and TOP has gone beyond the FERC directive and should not be required.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US ACE		<input checked="" type="checkbox"/>	<p>What role will the Generator Owner play in this standard? Are there going to be requirements for certification of maintenance folks at the project as well as the relay technician? If not, why was the Generator Owner listed as a responsible entity under this standard?</p> <p>I do agree with the requirement for certification of Generator Operators. The generator operators need to have a better understanding of the role they play in supporting the transmission system as well as they need to be certified in Black Start and Black Start capable operations.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US BRC		<input checked="" type="checkbox"/>	<p>In the Detailed Description the SAR states: "The certification requirements for local transmission control center operators and local generation control center operators need</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
			<p>to be identified and then the standard needs to be modified to address their certification." This request appears to be in direct opposition to the direction of the Commission. In Order 693 (P 1407) the Commission states that they "are persuaded not to require generator operators or transmission operators at local control centers to be NERC-certified at this time."</p> <p>We recommend that certification requirements for local control centers not be developed. In the case of generator operators we recommend that certification requirements be determined only for real-time operational personnel located in a centralized generation control center that interfaces with the plants.</p>
<p>Response: The CSO SAR Drafting Team removed the language from the Detailed Description. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ATC		<input checked="" type="checkbox"/>	<p>The SAR needs to be expanded to include NERC Standards PER-001 and PER-002. Doing so is the only way to insure the development of a comprehensive set of personnel standards. To limit the effort to only one standard ignores the foreseeable issues.</p> <p>Will ongoing training be required for the applicable individuals? Will applicable individuals be required to protect the BES as established in PER-001? If the answer is no to both of these questions then what will certification achieve?</p> <p>All control center system operators that are responsible for implementing NERC Requirements either independently or under the directions of the TOP should be certified. In addition those individuals should be required to participate in ongoing training activities.</p>
<p>Response: There are other NERC standard projects that are addressing some of the PER standards. The revision to PER-003 is being addressed by this Project, 2007-04 (http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html). The revision to PER-001 is being addressed in Project 2007-03, Real-Time Operations (http://www.nerc.com/~filez/standards/Real-time_Operations_Project_2007-03.html). PER-002 is being replaced with PER-005, Project 2006-04, System Personnel Training (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). Ongoing training requirements are required for applicable individuals. Applicable individuals will be required to protect the</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
<p>BES as established in PER-001. The purpose of certification is to establish the base knowledge level to operate the BES in North America.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Manitoba Hydro		<input checked="" type="checkbox"/>	<p>Manitoba Hydro does not believe that the generator operators need to be NERC Certified. The generator operators are not responsible for the operation of the bulk electric system and do not act unilaterally in response to the bulk electric system. They take their direction from the Transmission Operator/Balancing Authority.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
SOCO		<input checked="" type="checkbox"/>	<p>The scope is too broad. It should be modified to reflect the certification requirements for personnel who perform specific reliability tasks. Personnel who have the authority to independently perform one or more of those tasks on behalf of the functional entity should be certified. The standards drafting team should specify the reliability task that require certification of personnel.</p>
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Brazos		<input checked="" type="checkbox"/>	<p>The Operating Personnel certification is critical for those with the decision making authority over Bulk Power System facilities ie RC, BA, and TOP. The competencies</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
			required for the local control center operators is better addressed by training. Extending certification requirements beyond the RC, BA and TOP would go beyond the FERC directive and should not be required.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Hydro One	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	See our answer to question 1. The scope should be limited to competencies required for operators whose decisions affect the reliability of the BES. The scope should not be extended to requirements for certification of local control center operators and these should not be addressed in this standard. Extending certification requirements beyond the RC, BA and TOP has gone beyond the FERC directive and should not be required.
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>The CSO SAR Drafting Team agrees that this standard is not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
directives, based on the clarification.			
KCPL	<input checked="" type="checkbox"/>		Item 3 in the scope refers to incorporation of improvements from the standards development work plan, but I did not find that in the materials. I have indicated "Yes" to this question, with some concern as to what is contained in the standards development work plan that I am not aware of.
<p>Response: The most recent Reliability Standards Development Workplan is posted on the NERC website at the following URL:</p> <p>ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf</p>			
FirstEnergy	<input checked="" type="checkbox"/>		<p>However, the scope should be expanded to include a review of any existing and pending Regional Reliability Organization/Regional Entity standards, policies, requirements, etc. that contain Operator Certification requirements that can and should be elevated to the NERC Operator Certification standard to eliminate duplication wherever possible. This SAR should also include direction on ensuring that this standard development recognizes and is consistent with the Markets that exist and are pending including the methods and concepts used by those markets to ensure reliability related to operator certification. Version 0 comments should be considered in the standard development process with action required only when they are relevant to, applicable to, and will improve the quality and measureability of the standard as it exists today.</p> <p>The scope should include instruction that the standards drafting team determine the functional entities that require certified operators and the tasks performed by those entities that require operator certification. This determination should include the consideration of the impacts on the reliability of the BES of switching operations under the control of operations personnel including the Local Control Centers via electronic methods (supervisory control) or communication with others. In addition, this determination should consider the amount of load under the control of operations personnel via electronic methods (supervisory control) available for load shedding. Load shedding in significant amounts can have a profound impact on the reliability of the interconnection and must be considered in determining operator certification requirements. Any operator that regularly performs one of those reliability-related tasks on behalf of the functional entity should be required to be certified. Thus, some operators at local control centers may require certification if they are performing some of these functions regularly.</p>
<p>Response: The CSO SAR Drafting Team disagrees that the scope should be expanded to include existing and pending</p>			

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Question #2			
Commenter	Yes	No	Comment
<p>RRO/RE standards. If RRO/RE standards are included the NERC certification requirements, the certification would no longer be applicable to <u>all</u> of North America. The content of the certification exam is based on a job analysis and subsequent content outline among the certified population. Therefore all questions on the exam can be traced specifically back to tasks that system operators perform and the content includes any responsible tasks.</p> <p>The CSO Standard Drafting Team will address the V0 comments when revising the standard.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>			
Allegheny Power	<input checked="" type="checkbox"/>		Allegheny Power agrees with scope of the proposed SAR. Below are what we feel are the the most important scoping issues: 1) Specify the appropriate levels of certification for all applicable entities; 2) The issue of "Critical Tasks" must be addressed by the Standard Drafting Team. The "Critical Tasks" must be defined as specifically as possible; 3) The phrase "direct, continuous supervision, and observation" must be defined in clear language.
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard. The CSO Standard Drafting Team will also address your comments that included in comment 2) critical tasks and comment 3) direct, continuous supervision, and observation, as captured in the list of VO Industry Comments in the SAR.</p>			
ITC Transco	<input checked="" type="checkbox"/>		
APS Power Operations	<input checked="" type="checkbox"/>		
KAMO Power	<input checked="" type="checkbox"/>		
Oncor	<input checked="" type="checkbox"/>		
Entergy	<input checked="" type="checkbox"/>		
Entergy SPO	<input checked="" type="checkbox"/>		

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Question #2			
Commenter	Yes	No	Comment
ERCOT	<input checked="" type="checkbox"/>		
Northeast Utilities	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
SRP	<input checked="" type="checkbox"/>		

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3. Do you agree with the applicability of the proposed standard action? If not, what function entities do you think need to be added or delete?

Summary Consideration:

The majority of the commenters did not agree with the applicability of the proposed standard action, not agreeing with the inclusion of local control center operators. A few commenters did not support the inclusion of the Interchange Authority since it has not yet been registered for compliance.

Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.

Question #3			
Commenter	Yes	No	Comment
CenterPoint Energy		<input checked="" type="checkbox"/>	CenterPoint Energy disagrees with the inclusion of Transmission Owners and Generator Owners as local control center operators as discussed in our response to Question 2.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
City of Tallahassee		<input checked="" type="checkbox"/>	Based on the indication that additional system operators may need to be NERC certified as a result of this SAR, applicability should include the Transmission Service Provider, Distribution Provider and the Load-Serving Entity. To not include them from the beginning will "short change" them if the discussions feared in 2 above does take place. These entities do control shedding load, whether as directed by the Reliability Coordinator or by their Transmission Service Provider and should be invited to the party at the beginning.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

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Question #3			
Commenter	Yes	No	Comment
Allegheny Power		<input checked="" type="checkbox"/>	This standard should apply to the Transmission Operator (Local Control Center), Generator Owner (Market Operations Center) the Generator Operator as well as the Transmission Operator, Reliability Coordinator and the Balancing Authority.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
IESO		<input checked="" type="checkbox"/>	<p>We agree with the inclusion of all operating entities but question the need to include Transmission Owners and Generator Owners. In Functional Model Version 3, there are no real-time responsibilities assigned to these entities. Given the purpose of this standard, i.e., requiring operating personnel to acquire a certain level of credentials, the inclusion of these two entities seems inappropriate.</p> <p>We also believe that these should not apply to other entities including the IA and the GOP.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ISO New England		<input checked="" type="checkbox"/>	The IA, GO, GOP and TO should be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

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Question #3			
Commenter	Yes	No	Comment
NPCC RSC		<input checked="" type="checkbox"/>	NPCC participating members believe that IA, GO, GOP and TO should be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.)."
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US ACE		<input checked="" type="checkbox"/>	I don't see where the Generator Owner has a role in this reliability standard.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US BRC		<input checked="" type="checkbox"/>	<p>The standard currently applies to the reliability functions Transmission Operator, Balancing Authority, and Reliability Coordinator. In Order 693 (P1409) the Commission finds "...that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff." The SAR seeks to expand the standard to include the additional reliability functions Generator Operator, Generator Owner, Transmission Owner, and Interchange Authority. We agree that including the Generator Operator function supports this reliability goal.</p> <p>However, we question the need to expand the applicability to Generator Owner and Transmission Owner. We have no comment regarding Interchange Authority.</p> <p>NERC has defined (per Statement of Compliance Registry Criteria, Revision 3) the reliability function Transmission Owner as: "the entity that owns and maintains</p>

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Question #3			
Commenter	Yes	No	Comment
			<p>transmission facilities". Likewise the reliability function generator owner is defined as: " the entity that owns and maintains generating units.</p> <p>We fail to see how including these reliability functions serves to assure the credentials of those who have a primary responsibility for real-time operations. We recommend the reliability functions Generator Owner and Transmission Owner be dropped from the SAR.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ATC		<input checked="" type="checkbox"/>	<p>The addition of other entities to have certified "operating positions" is only one piece of the bigger puzzle. NERC must address the group of personnel standards to insure a set of comprehensive reliability standards. (PER-003, PER-002 and PER-001)</p> <p>If other NERC standards are not going to be addressed by this effort then NERC should limit this SAR to only those entities that perform real-time TOP, BA and RC Requirements using non-certified personal.</p> <p>What is the reason to stop at the certification requirement? (PER-003)</p>
<p>Response: There are other NERC standard projects that are addressing the PER standards. The revision to PER-003 is being addressed by this Project, 2007-04 (http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html). The revision to PER-001 is being addressed in Project 2007-03, Real-Time Operations (http://www.nerc.com/~filez/standards/Real-time_Operations_Project_2007-03.html). PER-002 is being replaced with PER-005, Project 2006-04, System Personnel Training (http://www.nerc.com/~filez/standards/System-Personnel-Training.html).</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Brazos		<input checked="" type="checkbox"/>	<p>Applicability to local control center operators should not required for reasons stated above.</p>

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Commenter	Yes	No	Comment
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Entergy		<input checked="" type="checkbox"/>	Not sure that new certification requirements need to be added for all Transmission Dispatchers, I believe NERC has addressed certification and we need to leave it up to the Transmission Owners to establish what level of TO's need to be certified.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Entergy SPO		<input checked="" type="checkbox"/>	Based on the scope of this SAR to determine if entities other than BA, TO and RC should be subject to some type of certification then all functions may be applicable, especially LSE, DP, TSP.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ERCOT		<input checked="" type="checkbox"/>	Should not apply to operators of power plants; e.g., Generator Owners and/or Generator Operators. Should not apply to those who own, but do not operate bulk electric transmission systems; e.g., Transmission Owners.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

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Question #3			
Commenter	Yes	No	Comment
FirstEnergy		<input checked="" type="checkbox"/>	<p>This standard should not be applicable to Generator owners and Generator operators. The function of Generator Operator and Generator owner is very broad. Generator owners own and maintain generation facilities. They do not operate generation facilities. Centrally located Generation Operator (Dispatchers) should be included under this standard due to the impact they can have on the reliability of the BES. Genertor Operators (control room personnel in direct control of the unit at the plant) that operate two units or less simultaneously should not be included in the applicability of this standard due to the minimal impact they can have on the reliability of the BES.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Hydro One		<input checked="" type="checkbox"/>	<p>It is difficult to be exact in determining what entities require certification because some do not affect reliability of the. For example, a small generator or local control area may not be significant to impact the reliability in their area. Perhaps, entities should be identified as impactive based on load/generation capability and voltage levels. From the reliability viewpoint, it is better to over certify than under certify.</p> <p>The Interchange Authority has not yet been registered for compliance. Equipment owners who do not have any operational impact should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ISO/RTO Council		<input checked="" type="checkbox"/>	<p>We believe that IA, GO, GOP and TO be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).</p>

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Question #3			
Commenter	Yes	No	Comment
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
MISO Stakeholders		<input checked="" type="checkbox"/>	<p>The applicability of this Standard should not be extended to include Generator Owners or Generator Operators. Generator Owners own and maintain generation facilities. They do not operate generation facilities. Generation Operators operate generation facilities.</p> <p>This Standard should not be extended to include Generator Operators in total. Many positions that routinely operate generating units are staffed by long-tenured union Control Room Operators in Plants who take directions from a centralized Generation Control Center and/or the local RTO/ISO. To require certification of these personnel would be analogous to requiring the certification of the outside field force of a Transmission Operator, including positions that operate and switch electric transmission lines.</p> <p>A limited extension of this Standard to only include the real time operation personnel in a centralized Generation Control Center that interfaces with the Plants and the local RTO/ISO may be appropriate. However, it would not be appropriate in all situations. For example, PJM requires local control center operators to be PJM certified. In this case, there is no need for additional certification of these local control center operators.</p> <p>Additionally, the scope indicates that "grandfathering certification requirements for transmission operator personnel" will be considered. FERC did not give a choice. They ordered that certain operators will not have to be certified due to grandfathering provisions. Thus, the only consideration is how to word this correctly in the standard. This exception should not apply only to transmission operator personnel as well. Any company with unionized operation personnel could have this problem. Modification of job requirements such as requiring certification is a trigger for contract re-negotiations with many collective bargaining agreements. FERC was very clear they did not intend to cause this to occur.</p> <p>FERC did indicate that management personnel at these companies with grandfathered</p>

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Question #3			
Commenter	Yes	No	Comment
			operators must ensure they are qualified to operate the system. The standards drafting team may want to consider including a requirement for these companies to formally do this in the standard through a letter to NERC Operator Certification Personnel or some similar means.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p>			
MRO		<input checked="" type="checkbox"/>	The transmission owner (TO) and generator owner (GO) should be removed from the scope. These entities don't have a primary responsibility for real-time operations.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
SOCO		<input checked="" type="checkbox"/>	This SAR should be limited to the Reliability Coordinator, Balancing Authority, Interchange Authority, Transmission Operator and Generator Operator (in some entities this is called "Market Operator") This is not to infer that an operator that works inside a power plant should be certified.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Manitoba Hydro		<input checked="" type="checkbox"/>	Manitoba Hydro believes PER-003-0 applicability is right. The generation operators should not be added as they are not responsible for the operation of the bulk electric system. They do not act unilaterally in response to the bulk electric system but take

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Question #3			
Commenter	Yes	No	Comment
			their direction from the Transmission Operator/Balancing Authority who are and should remain the Certified System Operators.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Northeast Utilities	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
SRP	<input checked="" type="checkbox"/>		
ITC Transco	<input checked="" type="checkbox"/>		
KCPL	<input checked="" type="checkbox"/>		
Oncor	<input checked="" type="checkbox"/>		
Ameren	<input checked="" type="checkbox"/>		
KAMO Power	<input checked="" type="checkbox"/>		

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4. If you are aware of any Regional Variances associated with the proposed standard action, please identify here.

Summary Consideration:

The majority of the comments were not aware of any Regional Variances associated with the proposed standard action. One commenter suggested that the overlapping certification requirements between NERC and ISOs/RTOs be addressed. The CSO SAR Drafting Team disagreed, explaining that certification programs that are administered and required by ISOs/RTOs are outside the scope of this SAR. A NERC Certification program that addresses regional variances would undermine the intent of a uniform certification for all North America.

Question #4		
Commenter	Regional Variance	Comment
Allegheny Power		The overlapping certification requirements between NERC and ISOs/RTOs should be addressed.
Response: The CSO SAR Drafting Team disagrees. Certification programs that are administered and required by ISO/RTOs are outside the scope of this SAR. A NERC Certification program that addresses regional variances would undermine the intent of a uniform certification for all North America.		
Ameren		No comment.
CenterPoint Energy		No comment.
City of Tallahassee		None
IESO		None
ISO New England		No comment.
NPCC RSC		No comment.
Oncor		No comment.
US ACE		No comment.
US BRC		No comment.
ATC		No
Brazos		No comment.
Entergy		No comment.
Entergy SPO		No comment.
ERCOT		No comment.
FirstEnergy		Not aware of any.
Hydro One		No
ISO/RTO Council		No comment.

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Question #4		
Commenter	Regional Variance	Comment
ITC Transco		No comment.
KCPL		No
MISO Stakeholders		No comment.
MRO		N/A
Northeast Utilities		No comment.
PSC SC		No comment.
SRP		No comment.
SOCO		We are not aware of any regional variances needed .
Manitoba Hydro		No comment.

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5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Summary Consideration:

The majority of the comments were not aware of the need for a business practice to support the proposed standard action. One comment suggested that there should be a ban on the practices of entities having formal or informal agreements that limit a certified operator’s employment opportunities. The CSO SAR Drafting Team believes this is a personnel issue and that personnel practices are outside the scope of the SAR.

Question #5	
Commenter	Comment
KAMO Power	There should be a ban on the practice of entities having formal or informal agreements that limit a certified operator's employment options without the prior knowledge and written consent of the operator.
Response: The CSO SAR Drafting Team believes that entity personnel practices are outside the scope of this SAR.	
Ameren	No comment.
CenterPoint Energy	No comment.
City of Tallahassee	None
Allegheny Power	None
IESO	No
ISO New England	No comment.
NPCC RSC	No comment.
Oncor	No comment.
US ACE	No comment.
US BRC	No comment.
ATC	No
Brazos	No comment.
Entergy	No comment.
Entergy SPO	No comment.
ERCOT	No comment.
FirstEnergy	Not aware of any.
Hydro One	No
ISO/RTO Council	No comment.
ITC Transco	No comment.
KCPL	None
MISO Stakeholders	No comment.
MRO	N/A

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #5	
Commenter	Comment
Northeast Utilities	No comment.
PSC SC	No comment.
SRP	No comment.
SOCO	No comment.
Manitoba Hydro	No comment.

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Question #6	
Commenter	Comment
APS Power Operations	<p>On the subject of PER-003-0, B., R1, we agree with the Industry Comment listed that personnel who MEET BOTH requirements R1.1 AND R1.2 shall be NERC certified, not MEET EITHER.</p> <p>On the subject of PER-003-0, M1, we believe that a qualified individual providing technical direction to a trainee will observe the work in progress to the extent necessary to verify the performance is proper. Providing direction does not imply continuous observation, but does imply control of the performance and observation appropriate to the difficulty and sensitivity of the work. We do not believe that value will be added by creating a requirement to conduct a comprehensive cataloging of task criticality in order to determine the proper amount of work supervision for the trainee. These decisions can be made most effectively by the qualified operator based on the trainee's progress to date, the existing circumstances, and their knowledge of the task at hand.</p> <p>On the subject of the compliance monitoring process, we agree that the wording "staffing plan" would be more clearly stated as "staffing schedule".</p>
<p>Response: The existing SAR captures your comment on R1 and will be addressed by the CSO Standard Drafting Team.</p> <p>The existing SAR captures your comment comment on M1 with respect to the critical tasks. The CSO Standard Drafting Team will address the V0 comment to clarify "What constitutes a "critical task? What duties performed in a typical control center are not "critical?" Inclusion of "critical tasks" is most likely a reference to the Critical Task List that has been established to guide operators in determining which of the four certification credentials (BIO, TO, BIT, RO) they are required to attain." The CSO SAR Drafting Team does not agree that M1.1 should be changed beyond addressing the existing comment on critical tasks. To comply with the NERC standards process to ensure the standard is enforceable, the CSO Standard Drafting Team will review and revise the requiements and measures to ensure they are unambiguous.</p> <p>The existing SAR captures your comment on the compliance monitoring process and will be addressed by the CSO Standard Drafting Team.</p>	
KAMO Power	<p>This will not only improve the reliability of the bulk electric system, it will also save money by assuring that operators are knowledgeable of their system and are operating lines and equipment in a safe and efficient manor. Maintaining certification will assure that every operator is constantly gaining the expertise required to operate in normal and emergency conditions.</p>
<p>Response: The CSO SAR Drafting Team agrees and thanks you for your comment.</p>	
IESO	<p>The drafting team must clarify issues related to any type of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactive real-time independent actions, or (c) switching operations under the supervision of certified supervisors. These are critical issues and unless clarity is obtained on these issues, it will be difficult to move</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	forward to the next stage.
	<p>Response: This SAR and standard are not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the <u>training</u> needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the <u>certification</u> of support personnel.</p> <p>The CSO SAR Drafting team believes your comment (b) and (c) are captured in the existing SAR by the following statement "The standard needs to be modified to clarify which system operators need to be NERC certified."</p>
NPCC RSC ISO New England	<p>As cited in FERC 693 under PER-003, Commission determination, no requirements were to be added for LCC, TO or GO certification:</p> <p>"1407. Northern Indiana and APPA raise persuasive arguments regarding labor relations and labor retention issues that may arise if generator operators are required to be NERCcertified. The Commission understands these concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERCcertified . In addition, the Commission understands that there are some long tenured unionized transmission operators who are very capable operators but who are unable to secure certification. This is not a new problem and has been addressed in various collective bargaining negotiations through grandfathering such capable operators who are unable to become certified. However, the Commission directs that if grandfathering is implemented, the entity must attest that the operators are competent. The Commission directs the ERO to consider grandfathering certification requirements for these personnel so that the industry can retain the knowledge and skill of these longtenured operators. Personnel that are subject to such grandfathering still must comply with applicable training requirements pursuant to PER-002-0."</p> <p>Furthermore, the Commission's determination appearing in PER-002 of FERC Order 693:</p> <p>"1348. Several commenters express concern about requiring local control center operators to become fully trained to the same extent as transmission operators, balancing authorities and reliability coordinators. This is not the Commission's intent. As we stated in the NOPR, the proposed modifications do not imply a "one-size-fits-all" approach but rather ensure the creation of training programs that are structured and tailored to the</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	<p>different functions and needs of the personnel involved.369 Therefore the Commission agrees with Entergy that the training program should be tailored to the functions local control center operators, generator operators and operations planning staff perform that impact the reliable operation of the Bulk-Power System for both normal and emergency operations."</p> <p>"1408. No comments were received on the proposed modifications to direct the ERO to modify the Reliability Standard to specify the minimum competencies that must be demonstrated to become and remain a certified operator and to identify the minimum competencies operating personnel must demonstrate to be certified. The Commission finds that these modifications improve the Reliability Standard by focusing on necessary competencies. Accordingly, the Commission directs the ERO to develop these modifications to the Reliability Standard.</p> <p>1409. We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process."</p> <p>Also, if the SAR proceeds, there is an opportunity for the drafting team to clarify issues related to any type of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactful real-time independent actions, or (c) switching operations under the supervision of certified supervisors.</p> <p>Finally, as to the Exelon Corporation suggestion "that Version 1 of this Standard be initiated to address the requirement to have NERC Certified Operators that perform functions that are formally delegated similar to the requirement of Policy 9B Req. 3." It is our understanding that only tasks may be delegated, not functions.</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>This SAR and standard are not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the <u>training</u> needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC Filing Volumes I II III Reliability Standards Development Plan 2008 2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the <u>certification</u> of support personnel.</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>
ATC	<p>Item 1: Using existing NERC rules some Transmission Operators (TOP) have delegated critical real-time operating control to local transmission control centers while at the same time avoiding certification requirements. (PER-003) Because of this situation NERC should review existing rules surrounding the delegation of Requirements and determine if modifications are needed. That effort may result in achieving the same goal as this SAR.</p> <p>ATC believes that a TOP should not be able to delegate Requirements that address real-time operations to non-certified system operators.</p> <p>Item 2: ATC is concerned with the use and weight placed on comments submitted during the Version 0 effort in the developed and justification if this SAR. The standard drafting team should place greater weight and consideration on comments submitted during this effort.</p>
	<p>Response: Item 1. The existing SAR captures your comment on R1 (see Exelon's comments in the V0 Comments section). The CSO Standard Drafting Team will address this comment during the development of the standard.</p> <p>Item 2: The existing SAR captures V0 comments. The CSO SAR Drafting Team has responded to all comments received on version 1 of the SAR and has revised the SAR based on industry feedback. The CSO Standard Drafting Team uses the revised SAR to develop the standard.</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
Entergy SPO	<p>We agree that new certification credentials may need to be developed based on local control center operations, or at least the requirements clarified in the standard with respect to these operators; especially to clarify the RTO/ISO and sub entity responsibilities.</p> <p>The proposal to consider grandfathering certification requirements for transmission operator personnel should be used only as a short transition period to allow proper testing/training/certification of all identified personnel.</p> <p>Please also consider the following aspects of the standard: R1 "Each...shall staff all operating positions..." The term "operating positions" needs better definition. For example, does this include technical/engineering personnel on shift that run short term and real time studies?</p> <p>M1, 1.1, 1.2 are actually "Requirements" and should be moved into that section.</p> <p>M1.1 "Critical tasks" needs definition, even if only to clarify that they are defined by the entity.</p> <p>M1.2 is out of place here. Where did the 4 hour limit come from? Should the requirement really be stated in EOP-009 Loss of Control Center Functionality as the time required in which to establish control at a site with NERC certified operators?</p> <p>D1 "...Staffing schedules and certification numbers will be compared to ensure that positions that require NERC certified operating personnel were covered as required. Certification numbers from the Transmission Operator, Balancing Authority, and Reliability Coordinator will be compared with NERC records..." is actually a Measure and should be moved into that section. The statement regarding exception reporting is no longer needed with the compliance programs that each region has established that require self reporting of violations.</p> <p>Many organizations have NERC certified personnel who are not necessarily "operators". The requirements to maintain NERC certification are not geared for these support/technical planning personnel. There are benefits to having these individuals knowledgeable of the NERC standards and the operational/reliability concepts behind the NERC certification, but now with the major commitment required for maintaining the 'operator' credential, these individuals will most likely not remain NERC certified. While a training program for non-operators might still encompass these aspects, there should be consideration given as to having a "NERC generic fundamentals" or "technical" certification. This may not be applicable to this standard but more so to the overall</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	certification program.
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification. Your comment on M1.1 is currently included in the VO Comments section and will be addressed by the CSO Standard Drafting Team.</p> <p>M1.2 is being addressed by Project 2006-004 Back-up Facilities, which is revising EOP-008. http://www.nerc.com/~filez/standards/Backup_Facilities.html</p> <p>The CSO Standard Drafting Team will revise the compliance section to conform with the revised standard format.</p> <p>NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p>
ERCOT	Continuing training of Certified System Operators should remain as a requirement to maintain certification.
	<p>Response: The CSO SAR Drafting Team does not believe that continuing training of Certified System Operators is within the scope of this SAR. The NERC System Operator Certification Program Manual addresses continuing training requirements for certification.</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	http://www.nerc.com/~training/certification/files/SOC_Program_Manual.pdf
Hydro One	<p>NERC should encourage certification of operating trainees within their first 6 months of employment. If unable to become certified after a number of attempts (e.g. 3), they are to be seen as not having the minimum competencies needed to operate, and should be removed from the operator training program.</p> <p>NERC certification represents a minimum requirement of needed knowledge. If trainees are training for a position that requires certification, they should all have to be NERC certified before they are allowed to operate, supervised or not. We need to have NERC should encourage certification of operating trainees within their first 6 months of employment. If unable to become certified after a number of attempts (e.g. 3), they are to be seen as not having the minimum competencies needed to operate, and should be removed from the operator training program.</p> <p>NERC certification represents a minimum requirement of needed knowledge. If trainees are training for a position that requires certification, they should all have to be NERC certified before they are allowed to operate, supervised or not. We need to have rigour, professionalism, and minimum standards for our industry.</p> <p>We support NERC's move toward CEH requirements as the way to maintain certification. It ensures minimum training is delivered which is inconsistent across the industry, professionalism, and minimum standards for our industry.</p> <p>We support NERC's move toward CEH requirements as the way to maintain certification. It ensures minimum training is delivered which is inconsistent across the industry.</p>
	<p>Response: The NERC Certification process and the SAR/Standard do not intend to dictate the amount of time that an entity takes to have operating trainees become certified.</p> <p>The CSO SAR Drafting Team agrees with your last statement.</p>
ISO/RTO Council	<p>As cited in FERC 693 under PER-003, Commission determined that no requirements were to be added for LCC, TO or GO certification:</p> <p>"1407. Northern Indiana and APPA raise persuasive arguments regarding labor relations and labor retention issues that may arise if generator operators are required to be NERCcertified. The Commission understands these concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERCcertified . In addition, the Commission understands that there are some long tenured unionized transmission operators who are very capable</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	<p>operators but who are unable to secure certification. This is not a new problem and has been addressed in various collective bargaining negotiations through grandfathering such capable operators who are unable to become certified. However, the Commission directs that if grandfathering is implemented, the entity must attest that the operators are competent. The Commission directs the ERO to consider grandfathering certification requirements for these personnel so that the industry can retain the knowledge and skill of these longtenured operators. Personnel that are subject to such grandfathering still must comply with applicable training requirements pursuant to PER-002-0."</p> <p>Furthermore, the Commission's determination appearing in PER-002 of FERC Order 693 "1348. Several commenters express concern about requiring local control center operators to become fully trained to the same extent as transmission operators, balancing authorities and reliability coordinators. This is not the Commission's intent. As we stated in the NOPR, the proposed modifications do not imply a "one-size-fits-all" approach but rather ensure the creation of training programs that are structured and tailored to the different functions and needs of the personnel involved. Therefore the Commission agrees with Entergy that the training program should be tailored to the functions local control center operators, generator operators and operations planning staff perform that impact the reliable operation of the Bulk-Power System for both normal and emergency operations."</p> <p>"1408. No comments were received on the proposed modifications to direct the ERO to modify the Reliability Standard to specify the minimum competencies that must be demonstrated to become and remain a certified operator and to identify the minimum competencies operating personnel must demonstrate to be certified. The Commission finds that these modifications improve the Reliability Standard by focusing on necessary competencies. Accordingly, the Commission directs the ERO to develop these modifications to the Reliability Standard.</p> <p>1409. We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process."</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>
ITC Transco	<p>The SAR proposes "grandfathering certification requirements for transmission operator personnel as part of the standards development process." We would like clarification on what, specifically, the grandfathering will cover, and for how long. Depending on the answer, grandfathering may or not be appropriate for inclusion in the SAR/Standard.</p>
	<p>Response: FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p>
KCPL	<p>This standard should be careful to not include a certification requirement for any personnel who take direct orders from others to operate equipment on the BES and who cannot deviate from that direction and take independent actions that could affect the BES. This standard should also be careful not to include personnel who support the systems and tools for system operators.</p>
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The CSO SAR Drafting Team agrees that this standard is not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p>
MISO Stakeholders	<p>The scope should reflect that the standards drafting team should determine which functional entities require certified operators and which specific requirements in the standards should require operator</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	certification. Then, any operator that regularly performs a task to meet compliance with one of these specific requirements should be required to be certified. Thus, some operators at local control centers may require certification if they are performing tasks to meet compliance on behalf of a registered entity. FERC clearly supports this position in Order 693. They specified that operators at local control centers should not be required to be certified unless they are performing functions that impact the BES. If the specific requirements is limited to those affecting the BES, any local control center operator regularly performing one of those functions would meet this exception.
	<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>
Northeast Utilities	We agree that the standard needs to be modified to clarify which operating personnel need to be NERC certified.
	Response: The CSO SAR Drafting Team agrees and thanks you for your comment.
PSC SC	One typographical suggestion: On Page SAR-2 under "Industry Need", I believe "stand up" should be "start up".
	Response: The CSO SAR Drafting Team believes stand up is the appropriate term.
SRP	No comment.
SOCO	No comment.
Manitoba Hydro	No comment.
FirstEnergy	No other comments.
Brazos	No comment.
MRO	N/A
Entergy	No comment.
Oncor	No comment.
US ACE	No comment.
US BRC	No comment.
Allegheny Power	None
CenterPoint Energy	No comment.
City of Tallahassee	None

Consideration of Comments on Second Draft of SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

The Operating Personnel Credentials SAR Drafting Team thanks all commenters who submitted comments on the 2nd draft of the SAR. This SAR was posted for a 30-day public comment period from January 2 through January 31, 2008. The SAR drafting team asked stakeholders to provide feedback on the SAR through a special SAR Comment Form. There were 50 sets of comments, including comments from 130 different people from more than 60 companies representing all 10 of the Industry Segments as shown in the table on the following pages.

Stakeholder comments received in response to the second draft of the Operating Personnel Credentials SAR did not indicate the need to make any new changes to the SAR. Based on the comments received, the drafting team is recommending that the Standards Committee authorize moving this SAR forward to standard drafting.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the SAR can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Process Manual:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Tim Hattaway (G7)	Alabama Electric Cooperative, Inc.	✓		✓									
2.	Anita Lee (G2)	Alberta Electric System Operator		✓										
3.	William J. Smith	Allegheny Power	✓											
4.	Ken Goldsmith (G4)	ALTW				✓								
5.	Kirit S. Shah	Ameren	✓		✓		✓	✓						
6.	Thad Kness	American Electric Power	✓		✓		✓	✓						
7.	Mike Anderson (G9)	American Electric Power	✓		✓		✓							
8.	Scott Lockwood (G9)	American Electric Power	✓		✓		✓							
9.	Chris Norton	AMP Ohio, Inc.				✓								
10.	John Neagle (G7)	Assoc. Electric Cooperative, Inc.	✓		✓									
11.	James Vermillion (G7)	Assoc. Electric Cooperative, Inc.	✓		✓									
12.	John Neagle	Assoc. Electric Cooperative, Inc.	✓				✓	✓						
13.	Jason Shaver	ATC LLC	✓											
14.	John Keller (G5)	Atlantic City Electric	✓											
15.	J. Andrew Dodge	Baltimore Gas and Electric	✓		✓									
16.	Dave Rudolph (G4)	BEPC	✓		✓		✓	✓						
17.	Robert Thomasson (G7)	Big Rivers Electric Corporation	✓		✓									
18.	Jeff Brown (G7)	Big Rivers Electric Corporation	✓		✓									
19.	Tony Kroskey	Brazos Electric	✓											
20.	Brent Kingsford (G2)	California ISO		✓										
21.	Brad Calhoun	CenterPoint Energy	✓											
22.	Paul Lampe (G9)	City of Independence	✓		✓		✓							
23.	Alisha Anker (G3) (G7)	City of Springfield, IL – CWLP	✓		✓		✓							

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
24.	Alan Gale	City of Tallahassee					✓							
25.	Steve Rose	City Water Light and Power	✓				✓		✓					
26.	Karl E. Kohlrus	City Water Power & Light, Springfield, IL					✓							
27.	Danny McDaniel (G9)	CLECO	✓		✓		✓							
28.	Russell A. Noble	Cowlitz County PUD No. 1			✓									
29.	Vic Davis (G5)	Delmarva Power	✓											
30.	Jalil J. Babik	Dominion Virginia Power					✓							
31.	Gregory D. Rowland	Duke Energy	✓		✓		✓							
32.	Gregory A. Mason	Dynegy					✓							
33.	Steve Myers (G2)	Electric Reliability Council of Texas		✓										
34.	Wayne Mitchell (G7)	Entergy Services, Inc.	✓		✓									
35.	Jim Case (G7)	Entergy Services, Inc.	✓		✓									
36.	H. Vann Weldon	ERCOT, Inc.		✓										
37.	Chris Scanlon	Exelon	✓											
38.	Sam Ciccone (G1)	FirstEnergy Corp.	✓		✓		✓	✓						
39.	Dave Folk (G1)	FirstEnergy FERC Compliance	✓		✓		✓	✓						
40.	Doug HohlBaugh (G1)	FirstEnergy FERC Compliance	✓		✓		✓	✓						
41.	Larry Hartley (G1)	FirstEnergy Solutions	✓		✓		✓	✓						
42.	R.L. Williamson (G7)	Georgia Power Company	✓		✓									
43.	Joseph Knight (G4)	GRE	✓		✓		✓	✓						✓
44.	Paul Hodges (G7)	GSOC	✓		✓									
45.	Wayne Pourciau (G7)	GSOC	✓		✓									
46.	Brian Haggard (G7)	GSOC	✓		✓									
47.	Gary Jenkins (G7)	GSOC	✓		✓									
48.	Alessia Dawes	Hydro One Networks, Inc.	✓		✓									
49.	Ron Falsetti (I) (G2)	Independent Electricity System Op.		✓										
50.	Kathleen M. Goodman	ISO New England		✓										
51.	Matt Goldberg (G2)	ISO New England		✓										
52.	Charles Yeung	Southwest Power Pool		✓										
53.	Jim Cyrulewski (G3)	JDRJC Associates									✓			
54.	Mike Gammon (G9)	Kansas City Power & Light	✓		✓		✓							
55.	Jim Useldinger (G9)	Kansas City Power & Light	✓		✓		✓							
56.	Jason Atwood (G9)	Kelson Energy					✓	✓						
57.	Dan Jewell (G7)	LA Generating, LLC			✓	✓								
58.	Charlie Deleon (G7)	LA Generating, LLC			✓	✓								
59.	Eric Ruskamp (G4)	LES	✓		✓		✓	✓						

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Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
60.	Steve Rainwater	Lower Colorado River Authority (1)	✓										✓	
61.	Rom Foreman	Lower Colorado River Authority (2)						✓						
62.	Joseph DePoorter	Madison Gas and Electric				✓								
63.	Leo St. Hilaire	Manitoba Hydro	✓		✓		✓	✓						
64.	Tom Mielnik (G4)	MEC	✓		✓		✓	✓						
65.	Robert Coish (G4)	MHEB	✓		✓		✓	✓						
66.	Marie Knox (G3)	Midwest ISO		✓										
67.	Bill Phillips (G2)	Midwest ISO		✓										
68.	Michael Brytowski (G4)	Midwest Reliability Organization												✓
69.	Jason L. Marshall (1) (G3)	Midwest Reliability Organization		✓										
70.	Carol Gerou (G3) (G4)	Minnesota Power	✓		✓		✓							
71.	Terry Bilke (G4)	Midwest ISO		✓										
72.	Larry Brusseau (G4)	Midwest Reliability Organization												✓
73.	Richard L. Koch	Nebraska Public Power District	✓		✓		✓							
74.	David Mahlmann	New York ISO		✓										✓
75.	Jim Castle (G2)	New York ISO		✓										
76.	Theodore G. Pappas	New York State Reliability Council												
77.	Richard McCall (G7)	No. Carolina Membership Corp.			✓	✓	✓							
78.	Rick White	Northeast Utilities	✓											
79.	Doug Jensen	NorthernStar Generation					✓							
80.	Allen Czerkiewicz	NorthernStar Generation					✓							
81.	George Brady	Ohio Valley Electric Corporation	✓											
82.	Pete Kuebeck (G9)	Oklahoma Gas & Electric	✓		✓		✓							
83.	Stan Southers/Ellis Rankin	Oncor Electric Delivery Company, LLC	✓											
84.	Larry R. Larson	Otter Tail Power Company	✓		✓		✓	✓						
85.	Richard Chapman (G7)	Owensboro, KY Municipal Utilities	✓		✓									
86.	Lauri Jones	Pacific Gas & Electric	✓		✓		✓			✓				
87.	Richard J. Kafka	Pepco Holdings, Inc.	✓											
88.	Patrick Brown	PJM Interconnection					✓	✓						
89.	Patrick Brown (G2)	PJM Interconnection		✓										
90.	Valerie Hildebrand (G5)	Potomac Electric Power Company	✓											

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Commenter		Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
91.	Mark Bryant (G6)	PPL Eastern Fossil & Hydro					✓						
92.	Joe Kisela (G6)	PPL Eastern Fossil & Hydro					✓						
93.	Mark Heimbach (G6)	PPL EnergyPlus					✓						
94.	Jon Williamson (G6)	PPL EnergyPlus						✓					
95.	John Cummings (G6)	PPL EnergyPlus						✓					
96.	Annette M. Bannon (G6)	PPL Generation LLC					✓						
97.	Tom Olson (G6)	PPL Montana					✓						
98.	David Gladey (G6)	PPL Susquehanna					✓						
99.	Kenneth D. Brown	PSEG Companies	✓		✓		✓	✓					
100.	Thomas J. Bradish	Reliant Energy					✓						
101.	Mike Pfeister	Salt River Project	✓		✓		✓	✓					
102.	Terry L. Blackwell	Santee Cooper	✓										
103.	Rene Free (G7) (G8)	Santee Cooper	✓										
104.	Kristi Boland (G7) (G8)	Santee Cooper	✓										
105.	Glenn Stephens (G8)	Santee Cooper	✓										
106.	Tom Abrams (G8)	Santee Cooper	✓										
107.	Margaret Stambach (G7)	SERC Reliability Corporation											✓
108.	Pat Huntley (G7)	SERC Reliability Corporation											✓
109.	John Troha (G7)	SERC Reliability Corporation											✓
110.	Gene DeIk (G7)	So. Carolina Electric & Gas	✓		✓								
111.	Steve Hebert (G7)	So. Carolina Electric & Gas	✓		✓								
112.	Steve McElhane (G7)	So. MS Electric Power Assoc.	✓		✓								
113.	Charles Evans (G7)	So. MS Electric Power Assoc.	✓		✓								
114.	Dan Kay (G7)	So. MS Electric Power Assoc.	✓		✓								
115.	Alan Wilson (G7)	So. MS Electric Power Assoc.	✓		✓								
116.	Gary Hutson (G7)	So. MS Electric Power Assoc.	✓		✓								
117.	Jim Griffith	Southern Company Services, Inc.	✓										
118.	James Ford (G7)	Southern Company Services, inc.	✓		✓								
119.	John Rembold (G7)	Southern Illinois Power Corporation	✓		✓								
120.	Robert C. Rhodes (G9)	Southwest Power Pool											✓

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	Commenter	Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
121.	Jason Smith (G9)	Southwest Power Pool											✓
122.	Kyle McMEnamin (G9)	SPS	✓		✓		✓						
123.	Stephen Joseph	Tampa Electric Company	✓		✓		✓						
124.	Mike Fielden (G7)	Tennessee Valley Authority	✓		✓							✓	
125.	Sue Mangum Goins	Tennessee Valley Authority	✓		✓							✓	
126.	Jim Haigh (G4)	WAPA	✓						✓				
127.	Barb Kedrowski (G3)	We Energies					✓						
128.	Jim Medford (G9)	Westar	✓		✓		✓						
129.	Neal Balu (G4)	WPA			✓	✓	✓	✓					
130.	Pam Oreschnick (G4)	XCEL	✓		✓		✓	✓					

- I – Individual
- G1 – FirstEnergy
- G2 – Midwest ISO
- G3 – Midwest Reliability Organization
- G4 – MRO NSRS
- G5 – Pepco Holdings, Inc.
- G6 – PPL Generation etc.
- G7 – SERC OC Standards Review Group
- G8 – Santee Cooper
- G9 – SPP Operating Reliability Working Group

Index to Questions, Comments, and Responses

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area..... 8

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1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

Summary Consideration: The majority (in excess of 80%) of the commenters agreed that this SAR should not be applicable to Generator Operator entities or Local Control Center Operator entities.

Following the initial posting of the SAR, the SAR Drafting Team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. With this second posting of the SAR, stakeholders have again indicated that the revised PER-003 should not be applicable to either the Generator Operator or Local Control Center Operator entities. The drafting team did not make any changes to the SAR based on stakeholder comments.

Commenter	Yes	No	Comment
Ameren		X	<p>Generator Operators, Transmission Operators, Balancing Authority Operators, and Reliability Coordinators have the primary responsibility for the real-time reliability of the Bulk Electric System. Each of these entities must have provincial knowledge of their systems AND must have knowledge of how their systems fit in with the overall interconnected system*. While it seems nice to think that TOPs, BAs, and RCs can effectuate presumptive actions at a GOP, there is no doubt that most such actions are, in fact, responsive. It is precisely for this reason that NERC certifications exist. And if certifications are necessary for TOP, BA, and RCs then it should be needed for GOP. However, it is equally clear that the current certifications (which have, for all intents and purposes, been in place before the functional model was developed) do not offer a Generator Operator certification that is appropriate for the requirements put forth in the NERC standards and needed for all Generator Operators. Rather than remove the certification requirement for GOPs, it is incumbent to develop the PROPER certification for GOPs. Such certification should only include generation systems and their impact on the Bulk Electric System. We envisage that such certification would entail perhaps 1/3 of the material in a BA/TOP certification and would carry with it a reduced set of certification hours, perhaps 50-90 hours of renewal training accumulated over three years for the review of Standards and Bulk Electric System concepts. We would also expect that each GO would determine, based on their organizational structure, for which positions certification is appropriate.</p> <p>*TOPs, BAs, and RCs do not know what traps may be created by a GOP(until it is too late). For example, a GOP might be having difficulty with a control function which is limiting output to less than maximum. The problem seems to be related to frequency response. Is there a possibility that a unknowing GOP would disable the droop component to maximize output until they can get the control problem fixed? If yes,</p>

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Commenter	Yes	No	Comment
			such action would then obviously undermine BES reliability. Having the GOP function certified would obviate this.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators (GOPs) are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by having agreements in place to assure that the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from an operating authority on how to proceed from that point. The BA and TOP remain the responsible operating authorities.</p>			
American Electric Power		X	<p>Due to the potential impact of a Generation Operator's actions on the ability of the other Functional Entities to perform their functions in maintaining reliable operation of the Bulk Electric System, it would be appropriate to include NERC certification for the Generator Operator. In developing the Generator Operator certification, it should be understood that the need for maintaining at least a high level of demonstrated understanding of the effect of each Functional Entity's impact on the other reliability functions. From the real-time reliable operating perspective, the related impact for maintaining reliability among the responsible Functional Entities cannot be separated, because of the inherent effect each one has on the other.</p>
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator (RC), the Balancing Authority (BA) and the Transmission Operator (TOP) is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Hydro One Networks, Inc.		X	<p>Generator Operators or Local Control Centre Operators could operate a BES element. If so, they should require NERC certification.</p> <p>Similar to how Generator Operators are referred to in the proposed EOP-005-2 on System Restoration and Blackstart Resources - Operations, include Generator Operators</p>

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Commenter	Yes	No	Comment
			and Local Control Center Operators in the PER-003-0 standard Applicability section. In the Requirements section, write "Each Generator Operator who operates a Bulk Electricity System element ..."
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Tampa Electric Company		X	I feel NERC certification should be required for Generator Operators and Transmission Operators in a local control center. It is hard for me to believe that the entities listed above would not take corrective action for a realtime contingency or would let their system suffer a voltage collapse while waiting on direction from a NERC Certified ISO/RTO. If the entities listed above do take direct action to return thier system to a stable state, which I would expect them to do, without direction from the NERC Certified ISO/RTO, than they would be in violation of NERC Standards.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities. In cases of loss of communications between the operating entity and the GOP and/or LCC there is an agreed to procedure/directive in place defining what actions are to take place that has been directed by the operating entity(s).</p>			
Otter Tail Power Company		X	GOPs should have proper GOP certification that focuses on their duties with an understanding of the impact on BES reliability. Similarly, LCCs should have LCC certification that focuses on their specific duties and their impact on BES reliability. We believe NERC certification is an important part of reliable operations but expect that the

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Commenter	Yes	No	Comment
			<p>industry would be better served with specific certification which properly address duties of GOPs and LCCs since the functional model clearly draws a line between the duties of those two entities and those of a BA. The NERC Certification is a "baseline" of knowledge demonstrated through a written exam. We encourage others to not only endorse this certificaion need, but also to use this as a "baseline" for their training programs. With the turn-over of System Operations Personnel soon to come to our industry it is essential we maintain a basic level of knowledge among all personnel that effect the operation of the BES.</p>
<p>Response: The initial SAR contained requirements for Generator Operator (GOP) entities and Local Control Center (LCC) Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority (BA) and/or Transmission Operator (TOP) that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or GOP will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Lower Colorado River Authority (1)		X	<p>Local control center operator needs to be defined. What exactly is a "local control center operator"? Will that mean that Transmission Operators in ERCOT will not need to be NERC certified since ERCOT itself performs the control area function? Also, in the LCRA system there are numerous transmission lines that are owned by COOP's but are operated by LCRA. Does this mean that distribution operators at the COOP's can operate their transmission lines without being certified, yet an LCRA transmission operator would be required to have a certification? As you can see much clarification is needed here. In addition, generator operators can have a major impact on the transmission system, yet their training may or may not address the transmission system itself. I spent 9 years in power plant operations, yet knew relatively little about the transmission system in relation to the detailed knowledge I possessed with respect to plant operations. Since coming to work in a transmission control center it has been my experience that transmission operators know much more concerning generation than generator operators know about transmission. This is most likley due to the fact that transmission operators, at LCRA anyhow, tend to have more prior work experience, and more importantly, the NERC Certification Program and Continuing Education Program stress that knowledge. The same could be done for generator operators in my opinion.</p>
<p>Response: The initial SAR contained requirements for Generator Operator (GOP) entities and Local Control Center (LCC) Operator entities to be certified. The</p>			

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Commenter	Yes	No	Comment
			<p>SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GO/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>
Northeast Utilities		X	<p>We do agree Generator Operators need not be NERC certified. However, the SAR should recognize NERC certification of Transmission Operators in a Local Control Center (LCC) may be appropriate. Several New England LCCs are registered TOPs who run studies, monitor the system, switch components in & out of service including reactive resources, address real-time contingencies including load shedding, perform system restoration, have backup centers, direct other control centers to take action, etc. All actions/activities are closely coordinated with the RC/BA who is also registered as a TOP. Responsibilities and chain-of-command are documented and clear. It is recognized other Areas may not allow LCCs to take action alone, they act only when directed. The SAR needs to accomodate the different models that exist. Any operator that can take unilateral action on the bulk power system should be NERC certified. The revised "clean" SAR does not appear to specifically prevent LCCs from having certified operators, but this modification implies that could be the case.</p>
			<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities. In cases of loss of communications between the operating entity and the LCC there should be an agreed to procedure in place defining what actions are to take place.</p> <p>By definition, if an entity is registered as a TOP that entity must be certified both presently and in the proposed revisions to this standard. This SAR is not saying that personnel working at a LCC can't be certified, therefore they could be certified if desired.</p>
City Water Light and Power		X	Transmission Operators, Balancing Authority Operators, Reliability Coordinators, and

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Commenter	Yes	No	Comment
			<p>Generator Operators must have knowledge of these systems and the Bulk Electric System. TOP, BA, and RCs NERC Certification should also extend to GOP. A proper certification for GOP is needed rather than remove the certification requirement for GOP's. In an effort to reduce the burden of GOP certification on the entire Bulk Electric System the proper GOP certification should also have a requirement of a generator capacity connected to the Bulk Electric System. For example all generators at 100 MW or greater would be required to have the new GOP NERC Certification. The new GOP requirement would also extend to generators less than 100 MW that are determined to be "Critical Generators" or "Black Start Units" by Transmission Owner, Balancing Authority, Reliability Coordinator and NERC Region to the Bulk Electric System. All other smaller generators would be excluded from the GOP NERC Certification. The PROPER GOP Certification requirement would achieve a higher level of competency and increase the level Bulk Electric System situational awareness by the GOP which is the intent of the NERC Standards.</p>
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entity.</p>			
City Water Power & Light, Springfield	X	X	<p>I agree with the changes to eliminate the requirements for NERC certification of generator operators, but not for eliminating the requirement for certification of local control system operators.</p> <p>There are many sizes and types of generator operators. Where would you draw the line? Voltage? Size? Type? Our system has a 128 MW generator connected to the 138 kV system, whereas a neighbor has a 260 MW generator connected to the 69 kV system. There are thousands of personnel who operate various sizes and types of generators. Requiring NERC certification for all of them would be an administrative burden and not add to reliability.</p> <p>Certifying local control center operators, however, should be kept. Most problems start and are addressed locally. If untrained personnel are operating the system, this could result in reliability</p>

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Commenter	Yes	No	Comment
			<p>problems. For example, the 24 BAs in MISO, many of which are also TOPs, will be operating as Local Balancing Authorities after the MISO Ancillary Services Market begins operation. If a local TOP operates 100 kV or higher facilities, that person should be certified.</p>
			<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p> <p>LCC personnel training requirements are not within the scope of this SAR. The training standard that addresses BES personnel training requirements is currently being developed separate from this SAR.</p>
FirstEnergy Corp.	X	X	<p>The modifications made to the SAR to eliminate the NERC certification requirements for Generator Operators and local control center operators is consistent with the FERC view of the matter as communicated in Order 693. We agree that certification should be focused on expectations, tailored towards specific job functions, and reflect the impact that an operators actions can have on the reliability of the Bulk Electric System.</p> <p>Local control center operators that have at their unrestrained control the ability to perform switching on the Bulk Electric System, to shed load, or to restore load through the use of supervisory control or through the direct or indirect communication with a field switchman under some circumstances can have a profound impact on the reliability of the Bulk Electric System and should be certified. However, local control center operators in remote locations that are prohibited from developing and taking independent action during a normal, emergency or restoration conditions should not be required to be certified.</p> <p>The Generator Operator (the operator at the controls of a plant or unit) should not be required to be certified. However, the Generator Operator (the operator on duty at a centrally located control center with control over a fleet of generators located at two or more power plants) can have a profound impact on the reliability of the Bulk Electric System and should be certified.</p> <p>Both the Generator Operator and local control center operator requiring certification as outlined above should be subject to the certification requirements of a reliability</p>

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
			organization such as NERC or a Regional Entity. These entities have the authority to develop and enforce standards compelling certification for all personnel with an impact on reliability.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC/GO follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Allegheny Power	X		Allegheny Power agrees with the modifications that eliminates the applicability of this standard to GOPs and LCCs. However NERC should specify that it is the responsibility of the ISO/RTOs to certify those entities. The minimum requirements for those certification program should be specified in a NERC Standard to ensure consistent certification through out the entire grid for those entities.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. In regards to your suggestion that NERC should ensure the ISO/RTOs certify these entities - that is beyond the scope of this SAR.</p>			
AMP Ohio, Inc.	X		AMP-Ohio agrees with eliminating the current requirements as they currently apply to generator operators. To the extent that a certification or training standard is applied to generator operators it should be tailored to the functions and activities that generator operators actually conduct. Generator operator personnel should not be required to test on detailed functions and activities that take place at the Reliability Coordinator, Balancing Authority or Transmission Operator. In other words generator operators should not be required to pass the balancing authority, transmission operator or reliability coordinator test. A new test should be developed that is targeted towards generator operators and the functions they actually perform.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. In regards to your suggestion that a new test should be developed specific to Generator Operators, that is now outside the realm of this SAR.</p>			
ATC LLC	X		ATC believes that any system operator who is allowed to take independent action on the bulk power system should be NERC certified.
<p>By removing this provision from the SAR is the Standard Drafting Team saying that local</p>			

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
			<p>control center's system operators do not take independent action on the bulk power system?</p> <p>If this is the case then we agree with the changes to the SAR.</p> <p>Additional comments:</p> <p>Issue 1: The SAR needs to be expanded to include NERC Standards PER-001 and PER-002. Doing so is the only way to insure the development of a comprehensive set of personnel standards.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comments.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Local Control Center personnel will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities</p> <p>In regards to your suggestion that NERC should include Standards PER-001 and PER-002 in this SAR is out of the realm of this SAR. Per-001 deals with responsibility and authority while PER-002 concerns training. This Standard is meant to define those entities that need to be certified and is not meant to touch on responsibility, authority or training. A training standard is presently in the process of being developed.</p>			
Baltimore Gas and Electric	X		<p>We recommend that the revised standard be clear as to who is responsible at the requirement level as well. For example, Transmission Operator delegated tasks to Transmission Owners/Local Control Centers should not require Transmission Owner System Operators to be NERC certified. The Transmission Operator should be responsible for ensuring that the Transmission Owner/Local Control Center System Operators are qualified to perform their delegated tasks.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the Transmission Operator/Local Control Center follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
CenterPoint	X		<p>CenterPoint Energy strongly believes that the proposed modifications to the SAR are appropriate and consistent with FERC's determination in Order No. 693 paragraph 1407 "not to require generator operators and transmission operators at local control centers</p>

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
			to be NERC Certified at this time".
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
Dynegy	X		The Certifying System Operators SAR Drafting Team correctly cited FERC Order 693 and the NERC Functional Model Version 3 definitions as key reasons for eliminating any requirements for NERC certification of generator operators and local control center operators.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
ERCOT, Inc.	X		The Certifying System Operators SAR Drafting Team correctly cited FERC Order 693 and the NERC Functional Model Version 3 definitions as key reasons for eliminating any requirements for NERC certification of generator operators and local control center operators.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
Exelon	X		FERC final Rule 693 does not require certification for Local Control Center Transmission Owner / Operators or Generation Plant or Control Center Operators. Under Commission Determination, Paragraph 1407 of Order 693, Commissioners state " The Commission understands these (industry) concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERC certified at this time". Exelon agrees with FERC that it is the Balancing Authority, Reliability Coordinator and Transmission Operator, entities who have been certified by NERC per the guidelines in Appendix 5, Organization Registration and Certification of the NERC Rules Of Procedure, to whom the Standard should apply.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
IESO	X		The IESO supports the SAR DT position not to mandate certification of local control centers (LCC) and Generator Operators. The Generator Operator and the LCC Operator should not be subject to NERC certification requirements since they do not have the decision-making authority for the real-time operation of the Bulk-Power System.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
ISO New England	X		ISO New England supports the position not to mandate certification of LLCs and Generator Operators. ISO New England believes that NERC standards only apply to Registered Entities

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
			<p>identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and the definition of what exactly a local control center is varies across the country, creating a Standard that is applicable to this undefined entity would be problematic.</p> <p>Given the divergence in both areas of operations and technology to be operated, ISO New England believes that the best approach is to not require Generator Operator certification, but leave this responsibility to the plant/station owners who have a strong business purpose for ensuring their operating personnel are proficient.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. The ERO Rules of Procedure, not the Functional Model, dictate which entities must register for compliance with NERC's reliability standards.</p>			
ISO/RTO Council	X		<p>The IRC supports the SAR DT position not to mandate certification of LLCs and Generator Operators.</p> <p>The DT's position as regards to LLC's is consistent with the IRC's position that NERC standards only apply to Functional Entities identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and understanding of what exactly a local control center is varies across the country, registration of this undefined group would be inappropriate.</p> <p>The concept of not mandating NERC-certification of Generator Operators (that would have concentrated on the few generalized NERC standards that apply to operating generators) is consistent with the position that a one-size fits all approach for generator operators may not be the best approach. The SAR DT position allows a decentralized but more focused program approach for the areas in which the operators must work.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. The ERO Rules of Procedure, not the Functional Model, dictate which entities must register for compliance with NERC's reliability standards.</p>			
Manitoba Hydro	X		<p>The revisions to the SAR better represent the intent of the PER-003.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
Midwest ISO	X		<p>Training should be focused on expectations and tailored towards specific job functions. The plant operator and the local control center operator should not be subject to NERC certification requirements. It is not necessary for operators located in remote locations, who are not primarily responsible for the real-time operation of the Bulk-Power System, to be certified in real-time operations Reliability Standards because they are not</p>

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
			involved in the functions in which this disciplined training would be advantageous. There is an exception though. Some entities have local control centers that actually do work, such as switching, that the main control center would normally do. To the extent this happens, the local control center operators should be certified. If it is done under the supervision of a NERC certified operator, no certification would be needed.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GO/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Midwest Reliability Organization	X		<p>Following the NERC functional model. As long as an entity is not performing a critical function. ie: Reliability Coordinator, Transmission Operator, and Balancing Authority. The term "Local Control Center" is not a defined NERC function and is unclear what is meant by "Local Control Center".</p> <p>General Comment:</p> <p>On page 3 of the SAR under the V0 Industry Comments section, the second comment reads "R1 - Suggestion to be incorporated into next version (version 1): ...". This comment further states "The operation position is to be filled by a person holding the appropriate level certification." The MRO believes the example given after this sentence to explain this sentence does not fully clarify who might hold an appropriate level certificate. The MRO believes the example should be expanded to included other appropriate level certificates such that the example should read "For example, a person that is acting as the Reliability Coordinasator will need to hold a Reliability Coordinator operator certificate and a person acting as a Transmission Operator would need to hold a Tranmission Operator certificate, a Balancing Interchange Transmission Operator certificate, and/or Reliability Coordinator certificate."</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The Version 0 comments that were included in the SAR were submitted by stakeholders in response to PER-003-0 when Version 0 was under development. These comments have been included in the SAR so that the drafting team can consider these comments as they determine what modifications to make to the standard. The SAR drafting team will not edit these comments.</p>			
Nebraska Public Power District	X		I believe that NERC certification of GOP and LCC operating personnel is appropriate if and only if a new certification is developed that is relavant to their job functions and their ability to impact the BES. In my opinion, the requirement for NERC certification of generator operators and local control center operators should be removed from

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Commenter	Yes	No	Comment
			<p>Standard PER-003 until the new certification(s) have been developed and approved. Including the requirement at this time would result in the need to certify to one of the existing certifications. Reintroducing the requirement after approval of the new certification would allow owners, operators, and users of the bulk power system to know exactly what is being proposed before making it mandatory and enforceable.</p> <p>An alternate approach would be to retain the requirement with a "phased-in" implementation schedule where the development of the appropriate certification(s) is the first phase. The risk of this approach is that an unknown certification becomes mandatory and enforceable. This is similar to writing a blank check.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
NorthernStar Generation Services	X		<p>The Certifying System Operators Drafting Team properly deleted the originally-proposed requirement for certification of generator operators and local control center operators. There is no justification for any such requirement. First, there has been no NERC proceeding establishing whether there is any need for such uniform certification. Second, the original PER-003 certification proposal was the subject of a great deal of disagreement within the industry, and presented a litany of implementation difficulties, which FERC recognized in Order No. 693 (at para. 1395); in fact, the FERC acknowledged that certain elements of the proposed personnel certification plan presented implementation difficulties, and did not originally propose to require generator operator personnel to be NERC-certified (at para. 1407). Third, the PER-003 proposed certifications were never agreed to by a consensus of the Bulk Power System Users. Fourth, the usefulness of any such certification requirement is questionable, particularly since the physical equipment, communications systems, and controls in place at different generators widely differs. The captioned filers strongly support the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
Oncor Electric Delivery	X		<p>Oncor endorses the modifications made to the previous version of this draft standard.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
PJM Interconnection	X		<p>PJM agrees with this modification. We, as do many other entities, have an internal certification process for GOs and LCCs that are specific to the PJM system.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
PPL Industries	X		PPL Supply Groups agree with the changes made by the SAR drafting team to eliminate the requirements for generator operator and local control center operators to be NERC certified.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
SERC	X		We support this modification as it pertains to the functions that are applicable under PER-003.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
SPP ORWG	X		Although we concur with elimination of the requirement to certify generator operators (the operator actually controlling the generator), we have concerns that there are certain situations where we need to be sure that accountability is assigned to the Generator Operator entity. This may require including Generator Operator in the applicability section of standards where they may not be currently listed.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
As standards are posted for comment, please submit comments to indicate where you believe a requirement should be assigned to a Generator Operator.			
Lower Colorado River Authority (2)	X		
Madison Gas and Electric	X		
PSEG Companies	X		
Reliant Energy	X		
Salt River Project	X		
Santee Cooper	X		
Pepco Holdings, Inc.	X		
PG&E	X		
Ohio Valley Electric Cooperative	X		
New York ISO	X		
NY State Reliability Council	X		
Associated Electric Cooperative	X		
City of Tallahassee	X		
Cowlitz County PUD No. 1	X		

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
Dominion Virginia Power	X		
Duke Energy	X		
Brazos Electric	X		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

The Certifying System Operators Standard Drafting Team thanks all commenters who submitted comments on the draft Operating Personnel Credentials standard. This standard was posted for a 30-day public comment period from October 21, 2009 through November 20, 2009. The stakeholders were asked to provide feedback on the standard through a special Electronic Comment Form. There were 41 sets of comments, including comments from more than 150 different people from over 65 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received the drafting team made the following changes to the proposed Standard:

- Modified the Purpose statement to provide additional clarity.
- Modified the Effective Date from six months to twelve months.
- Modified the body of the Requirements to provide additional clarity on who should be certified and how certification is to be accomplished.
- Added a footnote to clarify that a trainee that is not NERC-certified must work under the direct supervision of a NERC-certified System Operator
- Modified the Measure to provide additional clarity as to who is being measured.
- Modified the VSLs to align with the modifications to the Requirements.

There were several minority issues that the team was unable to resolve, including the following:

- Several stakeholders object to the reference to “competencies.” The team is required to address the FERC directive from Order 693 that states that the standard must identify the minimum competencies operating personnel must demonstrate to be certified. The team met with FERC staff and confirmed that the directive does intend for competencies to be identified in the standard.
- Several stakeholders want the language from PER-003-0 relative to allowing trainees to work without a NERC certificate while under the direct supervision of a NERC certified System Operator to be provided in this standard and the team declined to include this provision. The SDT explained that they believed that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. However, the SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”
- Several stakeholders want the language from PER-003 that allowed a responsible entity to operate the BES with someone other than a NERC certified System Operator during an emergency while transferring from a primary control center to a backup control center and the team declined to include this provision. The SDT explained that it believed that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if

a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only impose a penalty if the situation truly warranted such an action.

- Several stakeholders asked for additional language to clarify the role of continuing education hours (CEHs) in maintaining a valid NERC certificate and the team declined to add a reference to CEHs in the standard. The SDT explained that they believed that a System Operator should maintain his or her certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.
- Several stakeholders want the VSLs to be gradated and the team did not change the VSLs. The VSLs proposed meet both NERC and FERC VSL Guidelines.

In this “Consideration of Comments” document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshueni@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

1. The Purpose statement of the draft standard reads “To ensure that System Operators performing the reliability-related tasks’ of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System”. 12

2. In The effective date of the draft standard reads “In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption”..... 25

3. Requirement R1 of the draft standard reads: 30

4. Requirement R2 of the draft standard reads: 49

5. Requirement R3 of the draft standard reads: 70

6. Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area..... 89

7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area. 100

8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area. 108

9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area..... 116

10. In In FERC Order 693 the Commission directed the ERO to consider “grandfathering” of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows: 120

11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process..... 126

12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section..... 140

13. In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1..... 143

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

		Commenter	Organization	Industry Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Margaret Stambach	SERC Standards Review Group	X	X	X		X	X			X	X
Additional Member		Additional Organization		Region		Segment Selection							
1.	Steve Fritz	ACES Power Marketing		SERC		6							
2.	John Neagle	AECI		SERC		1, 3, 5							
3.	Greg Yakle	City of Springfield IL-CWLP		SERC		1, 3, 5, 9							
4.	David Jenkins	Dominion VP		SERC		3, 1							
5.	Jack Kerr	Dominion VP		SERC		1, 3							
6.	Devan Hoke	Duke Energy		SERC		1, 3, 5							
7.	Steve Jones	Duke Energy		SERC		1, 3, 5							
8.	Andy Burch	EEI		SERC		1, 5							
9.	Rick Myers	EEI		SERC		1, 5							
10.	Jim Case	Entergy Transmission		SERC		1, 3							
11.	Robert Wayne Mitchell	Entergy Transmission		SERC		1, 3							
12.	Brad Young	EON-US		SERC		1, 3, 5							
13.	Brian Haggard	GSOC		SERC		3							
14.	Paul Hodges	GSOC		SERC		3							

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
15.	Timmy Lejeune	LAGen/NRG Energy	SERC							1, 3, 5					
16.	Dwayne Robert	OMU	SERC							1, 3, 5					
17.	Ray Gross	PJM	SERC							2					
18.	Bill Thigpen	PowerSouth	SERC							1, 3, 5, 9					
19.	Kevin Kelly	Progress Energy	SERC							1, 3, 5					
20.	Rene Free	Santee Cooper	SERC							1, 3, 5, 9					
21.	Glenn Stephens	Santee Cooper	SERC							1, 3, 5, 9					
22.	Gene Delk	SCE&G	SERC							1, 3, 5					
23.	Steve Hebert	SCE&G	SERC							1, 3, 5					
24.	John Troha	SERC Reliability Corp.	SERC							10					
25.	Gwen Frazier	Southern Company	SERC							1, 3, 5					
26.	Robert (Rocky) Williamson	Southern Company	SERC							1,3,5					
27.	Alvis Lanton	Southern Illinois Power	SERC							1,3,5					
28.	John Rembold	Southern Illinois Power	SERC							1,3,5					
29.	Doug Bailey	TVA	SERC							1,3,5,9					
30.	Mike Fielden	TVA	SERC							1,3,5,9					
31.	Edd Forsythe	TVA	SERC							1,3,5,9					
32.	John Kell	TVA	SERC							1,3,5,9					
33.	Sue Mangum	TVA	SERC							1,3,5,9					
34.	Annette Moore	TVA	SERC							1,3,5,9					
35.	David Troy	TVA	SERC							1,3,5,9					
2.	Group	Carol Gerou	NERC Standards Review Subcommittee												X
		Additional Member	Additional Organization	Region						Segment Selection					
1.	Chuck Lawrence	American Transmission Company	MRO												1
2.	Tom Webb	WPS Corporation	MRO												4, 5, 6
3.	Terry Bilke	Midwest ISO Inc.	MRO												2
4.	Jodi Jenson	Western Area Power Administration	MRO												1, 6
5.	Ken Goldsmith	Alliant Energy	MRO												4

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
6.	Dave Rudolph		Basin Electric Power Cooperative	MRO						1, 3, 5, 6				
7.	Eric Ruskamp		Lincoln Electric System	MRO						1, 3, 5, 6				
8.	Joseph Knight		Great River Energy	MRO						1, 3, 5, 6				
9.	Joe DePoorter		Madison Gas & Electric	MRO						3, 4, 5, 6				
10.	Scott Nickels		Rochester Public Utilities	MRO						4				
11.	Terry Harbour		MidAmerican Energy Company	MRO						1, 3, 5, 6				
3.	Group	Guy Zito	Northeast Power Coordinating Council											X
		Additional Member	Additional Organization	Region						Segment Selection				
1.	Alan Adamson		New York State Reliability Council, LLC	NPCC							10			
2.	Gregory Campoli		New York Independent System Operator	NPCC							2			
3.	Roger Champagne		Hydro-Quebec TransEnergie	NPCC							2			
4.	Kurtis Chong		Independent Electricity System Operator	NPCC							2			
5.	Sylvain Clermont		Hydro-Quebec TransEnergie	NPCC							1			
6.	Chris de Graffenried		Consolidated Edison Co. of New York, Inc.	NPCC							1			
7.	Brian D. Evans-Mongeon		Utility Services	NPCC							8			
8.	Peter Yost		Consolidated Edison Co. of New York, Inc.	NPCC							3			
9.	Brian L. Gooder		Ontario Power Generation Incorporated	NPCC							5			
10.	Kathleen Goodman		ISO - New England	NPCC							2			
11.	David Kiguel		Hydro One Networks Inc.	NPCC							1			
12.	Michael R. Lombardi		Notheast Utilities	NPCC							1			
13.	Randy MacDonald		New Brunswick System Operator	NPCC							2			
14.	Greg Mason		Dynegy Generation	NPCC							5			
15.	Bruce Metruck		New York Power Authority	NPCC							6			
16.	Chris Orzel		FPL Energy/NextEra Energy	NPCC							5			
17.	Robert Pellegrini		The United Illuminating Company	NPCC							1			
18.	Saurabh Saksena		National Grid	NPCC							1			
19.	Michael Schiavone		National Grid	NPCC							1			
20.	Lee Pedowicz		Northeast Power Coordinating Council	NPCC							10			

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
21.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC							10				
4.	Group	Deb Schaneman	Platte River Power Authority Operations Group	X		X		X						
Additional Member		Additional Organization		Region				Segment Selection						
1.	Terry Baker	Platte River Power Authority		WECC				1, 3, 5						
2.	John Powell	Platte River Power Authority		WECC				1, 3, 5						
3.	Jeff Landis	Platte River Power Authority		WECC				1, 3, 5						
5.	Group	Denise Koehn	Bonneville Power Administration	X		X		X	X					
Additional Member		Additional Organization		Region				Segment Selection						
1.	Bernie O'Connell	Transmission Dispatch		WECC				1						
2.	Ted Snodgrass	Transmission Dispatch		WECC				1						
3.	Tim Loepker	Transmission Dispatch		WECC				1						
6.	Group	Lauri Jones	WECC Operations Training Subcommittee											
Additional Member		Additional Organization		Region				Segment Selection						
1.	Robert Eubank	WECC		WECC				10						
2.	Steve Owen	PSC		WECC										
3.	Brian Reich	IPCO		WECC										
4.	Richard Krajewski	PNM		WECC										
5.	Keith Carmen	TSGT		WECC										
6.	Hank LuBean	DOPD		WECC										
7.	Kristie Coco	SRP		WECC										
8.	Rich Brock	PSC		WECC										
9.	Warren Maxvill	AVA		WECC										
10.	Bruce Fauvelle	AESO		WECC										
11.	Pete Gibson	WECC-RC		WECC										
12.	Brett Hallborg	BCTC		WECC										
13.	Stephanie Conn	WAPA		WECC										

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
14.	Bill Simmons	SMUD	WECC											
15.	Robert Staten	PSC	WECC											
16.	Robert Williams	Pacific Corp	WECC											
7.	Group	Kenneth D. Brown	Public Service Enterprise Group Inc. Companies	X		X								
Additional Member		Additional Organization		Region			Segment Selection							
1.	Ron Wharton	PSE&G	RFC				1, 3							
2.	Jim Hebson	ER&T	RFC				6							
3.	Tom Piascik	PSEG Fossil	RFC				5							
8.	Group	Sam Ciccone	FirstEnergy	X		X	X	X	X					
Additional Member		Additional Organization		Region			Segment Selection							
1.	Jim Eckels	FirstEnergy	RFC											
2.	John Wilson	FirstEnergy	RFC											
3.	John Martinez	FirstEnergy	RFC											
4.	Steve Megay	FirstEnergy	RFC											
5.	Andy Hunter	FirstEnergy	RFC											
6.	Dave Folk	FirstEnergy	RFC											
9.	Group	Jason L. Marshall	Midwest ISO Stakeholder Standards Collaborators		X									
Additional Member		Additional Organization		Region			Segment Selection							
1.	Michael J Ayotte	ITC Holdings	RFC				1							
2.	Barb Kedrowski	We Energies	RFC				3, 4, 5							
3.	Joe Knight	Great River Energy	MRO				1, 3, 5							
4.	Alisha Anker	Prairie Power, Inc.	SERC				3, 4							
5.	Jim Cyrulewski	JDRJC Associates, LLC	RFC				8							
10.	Group	Ben Li	ISO RTO Council Standards Review		X									

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment											
				1	2	3	4	5	6	7	8	9	10		
			Committee												
Additional Member		Additional Organization		Region				Segment Selection							
1.	Mark Thompson	AESO	WECC					2							
2.	Lourdes Estrada-Saliner	CAISO	WECC					2							
3.	Steve Myers	ERCOT	ERCOT					2							
4.	Matt Goldberg	ISONE	NPCC					2							
5.	Bill Phillips	MISO	MRO					2							
6.	Jim Castle	NYISO	NPCC					2							
7.	Patrick Brown	PJM	RFC					2							
8.	Charles Yeung	SPP	SPP					2							
11.	Group	JT Wood	Southern Company Transmission	X		X									
Additional Member		Additional Organization		Region				Segment Selection							
1.	Hugh Frances		SERC					1							
12.	Group	Richard J. Kafka	Pepco Holdings, Inc - Affiliates	X											
Additional Member		Additional Organization		Region				Segment Selection							
1.	David Thorne	Potomac Electric Power Company	RFC					1							
2.	Valerie Hildebrand	Potomac Electric Power Company	RFC					1							
3.	Vic Davis	Delmarva Power & Light	RFC					1							
4.	John Keller	Atlantic City Electric	RFC					1							
13.	Individual	Ted Bialy	Brookfield Renewable Power Inc	X				X							
14.	Individual	Sandra Shaffer	PacifiCorp	X		X		X	X						
15.	Individual	Kelly Blackmer	NERC PCGC												X
16.	Individual	Brent Ingebrigtsen	E.ON U.S. LLC	X		X		X	X						
17.	Individual	Mark L Bennett	Gainesville Regional Utilities	X		X		X						X	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
18.	Individual	Joylyn Stover	Consumers Energy Company			X	X	X						
19.	Individual	Mark Thompson	Alberta Electric System Operator		X									
20.	Individual	Kasia Mihalchuk	Manitoba Hydro	X		X		X	X					
21.	Individual	Alice Murdock	Xcel Energy	X		X		X	X					
22.	Individual	Lauri Jones	Pacific Gas and Electric Company	X		X		X						
23.	Individual	Brian Reich	IPCo			X	X							
24.	Individual	Gordon Rawlings	BCTC	X	X									
25.	Individual	Joe O'Brien	NIPSCO	X		X		X	X					
26.	Individual	Alan Gale	City of Tallahassee (TAL)			X		X						
27.	Individual	Kathleen Goodman	ISO New England Inc.		X									
28.	Individual	Jonathan Appelbaum	Long Island Power Authority	X										
29.	Individual	Ron Gunderson	Nebraska Public Power District	X		X		X						
30.	Individual	Edward Davis	Entergy Services	X		X		X	X					
31.	Individual	James H. Sorrels, Jr.	American Electric Power (AEP)	X		X		X	X					
32.	Individual	Dan Rochester	Independent Electricity System Operator		X									
33.	Individual	James Starling	South Carolina Electric and Gas	X		X		X	X					
34.	Individual	Laura Zotter	ERCOT ISO		X									

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
35.	Individual	Greg Rowland	Duke Energy	X		X		X	X					
36.	Individual	Scott Barfield-McGinnis	Georgia System Operations Corporation			X	X							
37.	Individual	Annette L. Moore	Transmission and Reliability (TRO), TVA										X	
38.	Individual	Roger Champagne	Hydro-Québec TransEnergie (HQT)	X										
39.	Individual	Jason Shaver	American Transmission Company	X										
40.	Individual	Martin Bauer	US Bureau of Reclamation					X						

1. **The Purpose statement of the draft standard reads “To ensure that System Operators performing the reliability-related tasks’ of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System”.**

Do you agree with the Purpose as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt that the measures did not match the purpose. The SDT explained that it is not required to tie the measures to the purpose of the standard. The SDT further stated that the measures define how to demonstrate compliance with the Requirement and that the measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.

Several other commenters did not believe that the minimum competency needed to be a System Operator should be a part of the standard as the NERC certification program cannot guarantee System Operator competence. The drafting team agrees. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies.” There is a FERC Directive from Order 693 to include the necessary minimum competency within the standard, and the threshold for passing the System Operator certification exams is aimed at those “minimum competencies.” A quick look at the latest exam for the Reliability Coordinator’s System Operators shows that in the Emergency Preparedness and Operations section of the exam, there are 35 questions, 7 for recall, 21 for application, and 7 for analysis.

Some commenters stated that the Purpose was not clear. The SDT explained that it modified the Purpose and added the term “NERC System Operator Certification Program”

A few commenters did not like the use of the term “System Operators” because its definition contained Generator Operators. The SDT explained that it used the term: “System Operator” because it was a defined term which helped to narrow who should be included in this standard. The SDT also explained that it further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority to provide additional clarity.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Manitoba Hydro	No	: The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program process” and removed the term “competency” from the Purpose statement.</p>		
American Transmission Company	No	<p>ATC is concerned that the proposed “Purpose” statement does not align with the requirements and measures as proposed. ATC believes that this standard should focus on requiring System Operators (Associated with RC, TOP and BA) to be NERC certified and should not directly address the competency issue. We are making this statement because we believe that the minimum competency issue is adequately covered in the NERC System Operator Certification program and therefore its inclusion in this standard is both duplicative and confusing. Does the SDT have any members from the NERC System Operation Certificate program or has the team reached out to that group while writing this standard? NERC’s System Operation Certificate program includes a test which is developed by industry experts and overseen by NERC with a focus on specific competencies based on NERC Reliability Standards. Since those competencies are already documented and covered in the Certificate program it is duplicative to include them within this standard. Suggested Modification: (Purpose Statement) “To ensure System Operators are NERC Certified.” We suggest deleting the phrase “performing the reliability-related tasks of the RC, BA and TOP” because the definition of System Operator is descriptive enough to cover this issue. In addition, the Applicability section already identifies which entities have to comply so we did not find it necessary to repeat them in the Purpose statement. Could the SDT identify the deficiencies with the definition of System Operator which cases them to include the additional descriptive language?</p>
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The SDT does include two members from the PCGC.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
<p>The SDT does not believe that using the term “System Operator” is descriptive enough. The term “System Operator” contains Generator Operators, who are not covered by this standard, within its definition.</p> <p>Also, the minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Long Island Power Authority	No	Certification process is in capitals even though it is not a defined term in the NERC Glossary. The term should either be defined or changed to lower case.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” to clarify how the entity is to obtain certification.</p>		
IPCo	No	demonstration of competencies should not be part of of this standard.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
ERCOT ISO	No	ERCOT ISO recommends the following change in wording:”To ensure that System Operators performing the functions of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain the associated valid NERC certificate.”
<p>Response: The SDT is trying to specifically define who is to be certified. The SDT believes that your suggested wording could be strictly interpreted to include personnel that do not necessarily need to be certified operators.</p>		
Consumers Energy Company	No	In order for this to make sense, I would replace the word “when” with “prior to.”
<p>Response: The SDT intentionally used the term “when” to ensure that anytime a person is in that position they need to be certified. The SDT believes that using the term “prior to” could be interpreted that an operator needs certification prior to filling a certain position but does not provide for maintenance of a certificate.</p>		
NIPSCO	No	Passing a NERC Operating Certification exam does not ensure competency in all listed areas since one could perform poorly in one area of the exam and still obtain a credential. At the very least the word “competency” should be replaced by “minimum competency” here.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		
Tranmission and Reliability	No	Recommend the statement be demonstrated minimum competency through the certification process.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
(TRO), TVA		Certification is a minimum competency and does not fully demonstrate an operator’s ability and competency pertaining to real-time operations of the BES.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		
ISO RTO Council Standards Review Committee	No	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We are concerned that the stated purpose to demonstrate “competency through the Certification Process” is not fulfilled by the proposed requirements. Demonstration of competency cannot be based solely on the NERC Operator Certification Process. The successful completion of 200 continuing education hours over a three year period does not measure two other important factors tied to competency; possessing adequate skills, and exhibiting appropriate behaviors. Demonstration of competency is mandated through PER-005-1. To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest “for the control of the Bulk...” be changed to “for the real-time operation of the Bulk...” AESO has also submitted its individual comments that are not a part of these joint comments. Please note their additional comments to PER-003-1.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The term “control” is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.</p>		
Platte River Power Authority Operations Group	No	<p>The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not applicable to. It should read: To ensure that Reliability Coordinator, Transmission Operator and Balancing Authority system operators...Certification Process is capitalized indicating it is a defined term in the NERC Glossary of Terms which it is not. The standard drafting team (SDT) should either define the term or change it to say ...through the NERC system operator certification program.</p>
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p> <p>The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Midwest ISO Stakeholder Standards Collaborators	No	The purpose of this standard as written is OK but could be made simpler. A more simple and clearer purpose is: "To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified".
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p>		
Alberta Electric System Operator	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
BCTC	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
WECC Operations Training Subcommittee	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
US Bureau of Reclamation	No	The requirement is to obtain the certification. The purpose is to have demonstrated minimum competency in the specific areas defined in the standard.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Xcel Energy	No	The standard relates to operating personnel credentials. "Competencies" are addressed in the training standard as well as whatever the governing document is for the operator certification minimum criteria, not this standard. Suggested purpose: To ensure that System Operators performing the BES reliability related real time operating tasks of a Reliability Operator, Balancing Authority, or Transmission Operator possess the required level of NERC Certification.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Georgia System Operations Corporation	No	The term real-time operating position needs to be defined. The term system operators in the NERC glossary refer to generation operators and this standard does not. Should the glossary be changed to remove generator operators?
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p> <p>The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		
Independent Electricity System Operator	No	The use of the terms “demonstrated competency” in this context is perhaps misleading and inappropriate. It is generally accepted in the industry that a person who is deemed to be competent, or has obtained competency or is able to demonstrate competency in performing a job consisting of a number of tasks

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
		<p>encompasses a combination of knowledge, skills and behavior. It is possible for any person to write and pass a NERC certification exam without ever having performed a reliability related task. The purpose of this standard is to ensure that operators performing reliability related tasks are appropriately certified. Competency in performing reliability related tasks is ensured through operator training which is addressed in Standard PER-005-01. The SDT commentary in Question #10 of this comment form seems to acknowledge the fact that obtaining NERC Certification only ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations and that passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator. Suggested alternative wording for the "Purpose" statement: "To ensure that System Operators performing the reliability-related tasks' of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain certification through the NERC Certification Process".</p>
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>Hydro-Québec TransEnergie (HQT)</p>	<p>No</p>	<p>There is concern over the use of "control of the Bulk Electric System". Revision of the standard used "real-time operation of the Bulk Electric System". What is the definition of "control of the Bulk Electric System"? Clarify "control". "Control" implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define "control" for the RC's region. To be more complete and accurate, suggest "for the control of the Bulk..." be changed to "for the real-time operation of the Bulk..." Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. It is our opinion that they don't need to be certified. What is the opinion of the SDT?</p>
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The term "control" is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.</p> <p>Reliability related tasks are defined by each individual entity as covered in PER-005 which has been adopted by the NERC BOT and filed with FERC for approval.</p> <p>The SDT believes that operations support personnel are not making real-time operating decisions and therefore do not need to be covered in this standard.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Northeast Power Coordinating Council	No	<p>There is concern over the use of “control of the Bulk Electric System”. Revision of the standard used “real-time operation of the Bulk Electric System”. What is the definition of “control of the Bulk Electric System”? Clarify “control”. “Control” implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define “control” for the RC’s region. To be more complete and accurate, suggest “for the control of the Bulk...” be changed to “for the real-time operation of the Bulk...” Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. The wording in the purpose of PER-003-1 does not align with the requirements or the measures outlined in PER-003-1. The purpose of PER-003-1 discusses performing reliability related tasks and demonstrating competency. The purpose of PER-003-1 is more like the PER-005 requirement to verify each operator’s ability to perform reliability related tasks. The purpose of PER-003-1 should be straightforward: ensure each RC, BA, and TOP staffs their real-time operating positions responsible for control of the BES with NERC Certified System Operators. “And maintain competency and proficiency by participating in a training program that meets the requirements the System Personnel Training Reliability Standards” could be added.</p>
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The term “control” is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.</p> <p>Reliability related tasks are defined by each individual entity as covered in PER-005 which has been adopted by the NERC BOT and filed with FERC for approval.</p> <p>The SDT believes that operations support personnel are not making real-time operating decisions and therefore do not need to be covered in this standard.</p> <p>If the proposed addition were made, this standard would be redundant with PER-005. In addition, a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
ISO New England Inc.	No	<p>To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest “for the control of the Bulk...” be changed to “for the real-time operation of the Bulk...”</p>
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The term “control” is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
filed with NERC.		
Duke Energy	No	We believe the Purpose statement should be reworded to reflect that System Operators demonstrate a minimum level of competency by obtaining and maintaining NERC certification. Suggested rewording: "To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated minimum competency by obtaining and maintaining a valid NERC Certificate when filling a real-time operating position responsible for control of the Bulk Electric System."
Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.		
Entergy Services	No	We do not feel that a System Operator has "demonstrated competency" simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10 that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations. In the purpose statement above, the phrase "have demonstrated competency" should be changed to: "have achieved a minimum level of knowledge". In addition, our group would like clarification on some of the terms used in the purpose statement: "real-time operating position". The Glossary of Terms Used in Reliability Standards defines "real time" as "present time as opposed to future time", but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a "real-time operating position"? If so, then the trainee would require certification before being trained in real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. "System Operator". System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers." "Certification Process". This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing "Certification Process" with "system operator certification program", a more recognizable term.
Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement. The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.		

Organization	Yes or No	Question 1 Comment
<p>The SDT believes that the individual responsible for the operation of the BES must be certified. However, the SDT has added a footnote to the standard discussing trainees. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p>		
SERC Standards Review Group	No	<p>We do not feel that a System Operator has “demonstrated competency” simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10A. that “Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations.” In the purpose statement above, the phrase “have demonstrated competency” should be changed to: “have achieved a minimum level of knowledge”. In addition, our group would like clarification on some of the terms used in the purpose statement: “real-time operating position”. The Glossary of Terms Used in Reliability Standards defines “real time” as “present time as opposed to future time”, but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a “real-time operating position”? If so, then the trainee would require certification before being trained in performing real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. “System Operator”. System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers.” “Certification Process”. This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing “Certification Process” with “system operator certification program”, a more recognizable term.</p>
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the individual responsible for the operation of the BES must be certified. However, the SDT has added a footnote to the standard discussing trainees. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating</p>		

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Organization	Yes or No	Question 1 Comment
<p>position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p>		
<p>American Electric Power (AEP)</p>	<p>No</p>	<p>While AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that this best be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual. PER-003-0 is correctly focused only on exactly who needs to be certified and what certification is necessary. The specific competencies are best elaborated in the referenced manual and articulated in PER-002 and -005. However, there are a few changes to PER-003-0 that we do recommend, which will be covered in the questions that follow. The high level identification of competencies, consistent with FERC Order 693, does not address the unintended competency training area disconnect involving credential maintenance in the System Operator Certification Program Manual. There is presently no mechanism in the certification credential maintenance process to ensure a specific type of operator is getting the necessary minimum training in the competency areas identified for his/her credential. As long as an operator acquires enough Continuing Education (CE) hours on recognized training topics in Appendix A of the System Operator Certification Program Manual, along with the minimum simulation and standards requirement, he/she can successfully renew a specific credential. For example, there is presently no mechanism or measure to stop a Reliability Coordinator operator from taking all continuing education training in the area of Interchange Scheduling and Coordination, which is more pertinent to a Balancing & Interchange operator. Even if the initial RC exam content outline covers the required competency areas stated, the CE maintenance/renewal process allows a gap to neglect training in the required areas. Therefore, the Program Manual and other PER training Standards will need to address this gap in the future to ensure compliance with FERC order 693. By passing the initial NERC certification test, an operator merely demonstrates minimum knowledge in the specific credential area, as supported by the exam content outline and related questions. The identified competencies and measure of demonstration relevant to the specific credential areas should be addressed in the System Operator Certification Program Manual, and standards PER-002 and PER-005-1. PER-003-1 should simply require an operator, who is performing the real-time reliability related tasks related to the registered entity’s applicability, to hold the appropriate valid certification credential.</p>
<p>Response: The SDT is responding to a directive from FERC Order 693 to include the minimum competencies within this standard. In addition, the issue of “minimum competencies” was included in the industry approved SAR.</p> <p>Maintenance of a NERC certificate using CEH is outside the scope of the industry approved SAR. In addition, a System Operator can maintain his or her certification either by participating in a training program (accumulating CEHs) or the System Operator can simply re-take the Certification Exam.</p>		

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Organization	Yes or No	Question 1 Comment
The SDT did not want to mandate a certain method.		
FirstEnergy	Yes	Although we agree with the Purpose statement as proposed, we ask the SDT to consider changing the phrase "Certification Process" to the official name of the program as shown on NERC's website: "System Operator Certification Program".
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p>		
NERC Standards Review Subcommittee	Yes	This "purpose" statement is clear, direct and should be the basis of this proposed NERC Standard. It simply states that a RC, BA and TOP shall ensure that all Real-time System Operator positions have a valid NERC certificate.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p>		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	
City of Tallahassee (TAL)	Yes	
Gainesville Regional Utilities	Yes	
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	

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Organization	Yes or No	Question 1 Comment
Public Service Enterprise Group Inc. Companies	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

2. In The effective date of the draft standard reads “In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption”.

Do you agree with the effective date as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters did not feel that six months was enough time to implement the standard. The SDT stated that although the industry did not support the belief that six months was an inadequate amount of time to implement the standard, the SDT modified the effective date to twelve months in the event that some currently certified personnel may not hold the proper NERC certificate as defined by this standard.

A couple commenters questioned the need for two different implementation time periods. The SDT explained that the language used in the effective date is used in every standard and that it had been approved for use by the Standards Committee. The SDT further explained that different dates were necessary due to the fact that there are multiple jurisdictions, those governed by FERC (United States entities) and those not governed by FERC (Canadian entities).

Organization	Yes or No	Question 2 Comment
Hydro-Québec TransEnergie (HQT)	No	As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System.
<p>Response: The language used in the effective date is used in every standard and has been approved by the Standards Committee. The issue of different dates is necessary due to the fact that there are more than one jurisdiction Those being governed by FERC (United States entities) and the other not governed by FERC (Canadian entities). Since the standard does not include any real-time tasks, an implementation plan that is different in different jurisdictions should have no impact on real-time operations.</p>		
Northeast Power Coordinating Council	No	As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System.
<p>Response: The language used in the effective date is used in every standard and has been approved by the Standards Committee. The issue of</p>		

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Organization	Yes or No	Question 2 Comment
<p>different dates is necessary due to the fact that there are more than one jurisdiction Those being governed by FERC (United States entities) and the other not governed by FERC (Canadian entities). Since the standard does not include any real-time tasks, an implementation plan that is different in different jurisdictions should have no impact on real-time operations.</p>		
<p>Platte River Power Authority Operations Group</p>	<p>No</p>	<p>Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and 5 the implementation of this standard should not take effect until PER-005-1 is effective.</p>
<p>Response: PER-003 is defining who should be certified and what certification is necessary – it addresses minimum competencies applicable on a continent-wide basis. PER-005 is meant to define the training aspects for operating personnel and addresses full competence for all reliability-related tasks assigned to the position.</p>		
<p>ISO RTO Council Standards Review Committee</p>	<p>No</p>	<p>If compliance does not require extensive training and/or documentation changes from existing available training, then six months is appropriate. However, we reserve our right to change the response to this question dependent upon the final version of the proposed requirements.</p>
<p>Response: The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
<p>Brookfield Renewable Power Inc</p>	<p>No</p>	<p>Uncertain if my Operators need certification. If they do the timelines are too short to meet the standard.</p>
<p>Response: The applicability of this standard is tied to the organization compliance registry and any associated delegation agreements. For more information please refer to Section 500 of the Rules and Procedures. Entities that identify a need to become compliant can begin preparing their System Operators now, there is no need to wait for the standard to be approved.</p>		
<p>American Electric Power (AEP)</p>		<p>If any existing certifications are significantly modified or if additional certifications are added in the future, preparation time well beyond six months will be necessary for registered entities to become fully compliant.</p>
<p>Response: The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
<p>American Transmission Company</p>	<p>Yes</p>	<p>ATC does agree with the proposed effective date if the evidence to demonstrate compliance is limited to showing that our System Operators have a valid NERC Certificate.</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p>		

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Organization	Yes or No	Question 2 Comment
<p>The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
Alberta Electric System Operator	Yes	Please see the RTO/ISO SRC comments.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment. The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
Midwest ISO Stakeholder Standards Collaborators	Yes	These changes do not represent a significant change from what industry currently practices so a long implementation is not necessary.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment. The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it</p>		
NERC Standards Review Subcommittee	Yes	N/A
BCTC	Yes	
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Consumers Energy Company	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	

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Organization	Yes or No	Question 2 Comment
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
ISO New England Inc.	Yes	
Long Island Power Authority	Yes	
Manitoba Hydro	Yes	
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
NIPSCO	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
Public Service Enterprise Group Inc. Companies	Yes	
SERC Standards Review Group	Yes	

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Organization	Yes or No	Question 2 Comment
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	

3. Requirement R1 of the draft standard reads:

R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate.

1.1 Areas of Competency

1.1.1 Resources and Demand Balancing

1.1.2 Transmission Operations

1.1.3 Emergency Preparedness and Operations

1.1.4 System Operations

1.1.5 Protection and Control

1.1.6 Voltage and Reactive

1.1.7 Interchange Scheduling and Coordination

1.1.8 Interconnection and Reliability Operations and Coordination

Do you agree with Requirement R1 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the “Areas of Competency” came from and suggested that they should not be included within the standard. The SDT explained that the “Areas of competency” were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The SDT also explained that the expectation was that the registered entity would use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

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A few commenters felt there should be an exception within the standard for trainees. The SDT explained that, for reliability-related reasons, the entity responsible for the operation of the BES has to be certified. However, the SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”

A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if an entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

Organization	Yes or No	Question 3 Comment
Public Service Enterprise Group Inc. Companies	No	1.1.4 System Operations. This term needs to be specifically defined, either in this Standard or the NERC Glossary. Absent a clear definition, this term introduces a vagueness into the proposed standard that will make both compliance and enforcement problematic. The definition should be vetted in an open process so that industry comment can be obtained.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
IPCo	No	Area of competencies are not part of the certification.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program and serve as the basis for the certification exams. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Independent Electricity System Operator	No	As stated in question #1, the use of the terms “demonstrated competency” is not appropriate. However, those terms have now been combined with the word “minimum”, which now poses the question, how does one define minimum competency? The areas of competency listed simply reflect the grouping and organization of NERC Standards which the Reliability Coordinator Certification exam is based upon. If this standard is really intended to prescribe which NERC Standards each certification exam is to be based upon perhaps it should

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Organization	Yes or No	Question 3 Comment
		<p>simply state that.</p> <p>Suggested alternative wording of R1:R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC Reliability Operator certificate through the NERC Certification Process. The Reliability Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:1.1 Areas of Knowledge 1.1.1 Resources and Demand Balancing 1.1.2 Transmission Operations 1.1.3 Emergency Preparedness and Operations 1.1.4 System Operations 1.1.5 Protection and Control 1.1.6 Voltage and Reactive 1.1.7 Interchange Scheduling and Coordination 1.1.8 Interconnection and Reliability Operations and Coordination</p>
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
<p>Hydro-Québec TransEnergie (HQT)</p>	<p>No</p>	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. “Minimum competency” must be defined, and how it relates to continuing education. Requirement R1, item 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both</p>

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Organization	Yes or No	Question 3 Comment
		<p>“Transmission Operations” (1.1.2) and “System Operations” (1.1.4) are listed. Clarify the terms “System Operations” in 1.1.4, and “Transmission Operations”, and clarify the differences between them. Also, in R2 and R3 there are items 2.2 and 3.2 which list the certificates. Wouldn't it be appropriate to have an item “1.2 Certificates” for R1 as well?</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p> <p>Only one certificate can be used to meet compliance for Requirement R1, the Reliability Operator certificate.</p>		
ISO New England Inc.	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
Northeast Power Coordinating Council	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which</p>

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Organization	Yes or No	Question 3 Comment
		<p>reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. “Minimum competency” must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? Requirement R1, sub-requirement 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both “Transmission Operations” (1.1.2) and “System Operations” (1.1.4) are listed. Clarify the terms “System Operations” in 1.1.4, and “Transmission Operations”, and clarify the differences between them.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Nebraska Public Power District	No	Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read: R1. “Each Reliability Coordinator shall staff its real-time operating positions responsible for the control

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Organization	Yes or No	Question 3 Comment
		<p>of the Bulk Electric System with System Operators that have a valid NERC Reliability Operator certificate which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.”NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. 3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. 4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and consise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC

Organization	Yes or No	Question 3 Comment
		Certified individual.
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
MRO NERC Standards Review Subcommittee	No	<p>Concerning this Requirement, the MRO NERC Standards Review Subcommittee (NSRS) has the following concerns and request that the requirement is rewritten to read:</p> <p>R1. “Each Reliability Coordinator shall staff its real-time operating positions with System Operators that have obtained a valid NERC Reliability operator certificates which contain competencies as defined by the NERC System Operator Certification Program.The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a certification process. In other words, Real-time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted.

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		<p>3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test than to update a NERC Standard.</p> <p>4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program.</p> <p>5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p>		
Platte River Power Authority Operations Group	No	Demonstration of minimum competency for the Reliability Operator and maintaining certification is covered under PER-005-1. The requirement should read: Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system

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Organization	Yes or No	Question 3 Comment
		operator certification program in the areas listed to obtain a valid NERC Reliability Operator certificate.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
Brookfield Renewable Power Inc	No	Do not believe it applies to us.
<p>Response: The applicability of this standard is tied to the organization compliance registry and any associated delegation agreements. For more information please refer to Section 500 of the Rules and Procedures.</p>		
ERCOT ISO	No	ERCOT ISO doesn’t agree that competencies should be defined in the standard since they are already defined in the certification process.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Georgia System Operations Corporation	No	Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Reliability Coordinator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain a valid NERC Reliability Operator Certificate.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis and involve more than just recall of knowledge. The latest certification exams focus more heavily on application of knowledge.</p>		
Long Island Power Authority	No	LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Reliability Coordinator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess a valid and current NERC Reliability Operator Certificate."
<p>Response: : The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas</p>		

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Organization	Yes or No	Question 3 Comment
<p>listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>It is the entity’s responsibility to provide documentation showing that it has complied with the requirement. The measures define how to demonstrate compliance.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
E.ON U.S. LLC	No	<p>Operators must successfully complete the NERC Reliability Operator certification process. Thus, adding “Areas of Competency” in the requirement is redundant and only confuses what is needed for compliance.If “demonstration of minimum competency” is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures.E.ON U.S. suggests the wording of R1 be revised to:Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
American Electric Power (AEP)	No	<p>Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R1 should merely state that each registered applicable Reliability Coordinator (RC) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R1 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES.</p>		

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Organization	Yes or No	Question 3 Comment
American Transmission Company	No	Please see are specific comments in question 4. Proposed Modification: Each RC shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate.ATC suggest that the list of minimum competency be deleted.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
NIPSCO	No	R1 should be replaced by “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have a valid NERC Reliability Operator certificate”.Then the “Reliability Operator Certificate” and certification process should be defined in the Glossary of Terms or described within the standard.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The NERC System Operator Certification Program is a defined program in both the Rules & Procedure Section 600 & Appendix 6.</p>		
US Bureau of Reclamation	No	The certification should be specific in the citation by referring to the certification as N/RA/RC certification as appropriate for Reliability Coordinators. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requiriement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.
<p>Response: While we understand your concern that the lettering within the certificate number does not designate the type of certificate, the title does designate the type of certificate.</p> <p>The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate.</p>		
ISO RTO Council Standards Review Committee	No	The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification.As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency.The inclusion of the Areas of Competency should not be included in this requirement. There are no measures for this.. The inclusion of

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		<p>this list in the standard adds confusion and uncertainty in the demonstration of compliance with requirement R1.As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator's minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p>		
Consumers Energy Company	No	<p>The extra verbiage under "Areas of Competency" is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pepco Holdings, Inc - Affiliates	No	<p>The language in the Requirement doesn't match the language in the Measure. The sentence in R1 should read "...by obtaining and maintaining a valid NERC Reliability Operator certificate." Not "to obtain and maintain."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p>		

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Xcel Energy	No	The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
Manitoba Hydro	No	The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency”.</p>		
Alberta Electric System Operator	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		

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		<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
BCTC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
NERC PCGC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certificate. This certificate demonstrates competencies through the NERC certification process.” Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and</p>

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Organization	Yes or No	Question 3 Comment
		American National Standard Institute (ANSI) guidelines.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
WECC Operations Training Subcommittee	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate.Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating</p>		

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		<p>positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>Midwest ISO Stakeholder Standards Collaborators</p>	<p>No</p>	<p>The standard as written requires minimum competency. “At least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate.” As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The words, “at least” don’t seem necessary given the revision to the requirement.</p> <p>With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p>

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Transmission and Reliability (TRO), TVA	No	<p>The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Entergy Services	No	<p>To “obtain and maintain a valid NERC Reliability Operator certificate” (as stated in R1) a System Operator is required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has “demonstrated minimum competency” in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate”.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
SERC Standards Review Group	No	<p>To “obtain and maintain a valid NERC Reliability Operator certificate” (as stated in R1) a System Operator is</p>

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Organization	Yes or No	Question 3 Comment
		<p>required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has “demonstrated minimum competency” in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate”.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
FirstEnergy	No	<p>We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC’s System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states “... who have demonstrated minimum competency in the areas listed to obtain and maintain ...”. This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: “... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ...”</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		

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Organization	Yes or No	Question 3 Comment
<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>Duke Energy</p>	<p>No</p>	<p>We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. Suggested rewording: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator Certificate."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p>		
<p>Bonneville Power Administration</p>	<p>Yes</p>	
<p>City of Tallahassee (TAL)</p>	<p>Yes</p>	
<p>Gainesville Regional Utilities</p>	<p>Yes</p>	
<p>South Carolina Electric and Gas</p>	<p>Yes</p>	
<p>Southern Company Transmission</p>	<p>Yes</p>	

4. Requirement R2 of the draft standard reads:

R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

2.1 Areas of Competency

2.1.1 Transmission Operations

2.1.2 Emergency Preparedness and Operations

2.1.3 System Operations

2.1.4 Protection and Control

2.1.5 Voltage and Reactive

2.2 Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator"

Do you agree with Requirement R2 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the "Areas of Competency" came from and indicated that they should not be included within the standard. The SDT explained that the "Areas of competency" were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. As envisioned, the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

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A few commenters felt there should be an exception within the standard for trainees. The SDT explained that they believed that the entity responsible for the operation of the BES had to be certified. The SDT further explained that they did not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if an entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

Organization	Yes or No	Question 4 Comment
IPCo	No	area of competencies should not be included in this standard.
<p>Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives and Canadian System Operators participated in the job and task analysis used to identify the minimum competencies addressed in the certification exams. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Hydro-Québec TransEnergie (HQT)	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority." Minimum competency" must be defined, and how it relates to continuing education.</p>

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Organization	Yes or No	Question 4 Comment
		<p>Requirement R2, item 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.</p> <p>Both “Transmission Operations” (2.1.1) and “System Operations” (2.1.3) are listed. Clarify the terms “System Operations” in 2.1.3, and “Transmission Operations”, and clarify the differences between them.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires entities to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. The SDT believes that the Certification Exam is an evolving thing. It is continually undergoing scrutiny and modification. It is expected that the training that is to be developed and given to System Operators through PER-005 will provide the necessary mechanism to alleviate any differences between older exams and the current competencies referenced.</p> <p>To see the distinction between the competencies associated with the “Transmission Operations” and “System Operations” topics please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf</p>		
ISO New England Inc.	No	As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with

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Organization	Yes or No	Question 4 Comment
		<p>TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
<p>Northeast Power Coordinating Council</p>	<p>No</p>	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard.</p> <p>The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority.</p> <p>"Minimum competency" must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping?</p> <p>Requirement R2, sub-requirement 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.</p> <p>Both "Transmission Operations" (2.1.1) and "System Operations" (2.1.3) are listed. Clarify the terms "System</p>

Organization	Yes or No	Question 4 Comment
		Operations” in 2.1.3, and “Transmission Operations”, and clarify the differences between them.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires entities to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. The SDT believes that the Certification Exam is an evolving thing. It is continually undergoing scrutiny and modification. It is expected that the training that is to be developed and given to System Operators through PER-005 will provide the necessary mechanism to alleviate any differences between older exams and the current competencies referenced.</p> <p>To see the distinction between the competencies associated with the “Transmission Operations” and “System Operations” topics please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf</p>		
Nebraska Public Power District	No	<p>Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read:R2. “Each Transmission Operator shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.2.1 CertificatesReliability OperatorBalancing, Interchange and Transmission OperatorTransmission Operator”NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <p>1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified.</p>

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Organization	Yes or No	Question 4 Comment
		<p>2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted.</p> <p>3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard.</p> <p>4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program.</p> <p>5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and consise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. 		

Organization	Yes or No	Question 4 Comment
		<p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>MRO NERC Standards Review Subcommittee</p>	<p>No</p>	<p>Concerning this Requirement, the MRO NSRS has the following concerns and request that the requirement is rewritten to read:</p> <p>R2. “Each Transmission Operator shall staff its real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.</p> <p>2.2 Certificates</p> <ul style="list-style-type: none"> o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator <p>The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real-time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement

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Organization	Yes or No	Question 4 Comment
		<p>and we recommend that it be deleted.</p> <p>3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test than to update a NERC Standard.</p> <p>4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program.</p> <p>5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”. Requirement: “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program.</p>		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency and maintaining certification for the Transmission Operator is covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates.</p>

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Organization	Yes or No	Question 4 Comment
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. PER-005 does not include any requirements to maintain certification.</p>		
ERCOT ISO	No	ERCOT ISO doesn't agree that competencies should be defined in the standard since they are already defined in the certification process.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Entergy Services	No	For the reasons stated in question #3 above, we suggest R2 be changed to the following:”Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator”
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
SERC Standards Review Group	No	For the reasons stated in question #3 above, we suggest R2 be changed to the following:”Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator”
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Georgia System Operations Corporation	No	<p>Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording.</p> <p>Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates:1. Reliability Operator2. Balancing, Interchange, and Transmission Operator3. Transmission Operator4. Balancing and Interchange Operator</p>

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Organization	Yes or No	Question 4 Comment
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
US Bureau of Reclamation	No	<p>It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requirement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.</p>
<p>Response: Please refer to the System Operator Certification Manual for an explanation of the different certificates and to which operating position they apply. There are four different types of system operator certifications (1. Reliability Operator, 2. Balancing and Interchange Operator, 3. Transmission Operator, and Balancing, Interchange, and 4. Transmission Operator), and of the four, the Reliability Coordinator certificate is the most comprehensive. The Reliability Coordinator certificate addresses the competencies required for the Transmission Operator certificate as well as the competencies required for the Balancing and Interchange Operator certificate and the Transmission Operator certificates. The Balancing, Interchange and Transmission Operator certificate addresses the competencies required for the Transmission Operator certificate as well as the certificate required for the Balancing and Interchange Operator certificate. Thus, if a System Operator has earned a Reliability Coordinator certificate or a Balancing, Interchange and Transmission Operator certificate, that System Operator has demonstrated competencies beyond those needed for the Transmission Operator.</p> <p>The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate.</p>		
Long Island Power Authority	No	<p>LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Transmission Operator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:"</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>It is the entities responsibility to provide documentation of how you comply with the requirement. The measures define how to demonstrate compliance.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>E.ON U.S. LLC</p>	<p>No</p>	<p>Operators must hold one of the listed NERC certificates. Thus, adding “Areas of Competency” in the requirement is redundant and only confuses what is needed for compliance. If “demonstration of minimum competency” is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R2. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R2 be revised to: Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R2.2.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>American Electric Power (AEP)</p>	<p>No</p>	<p>Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R2 should merely state that each registered applicable Transmission Operator (TO) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Transmission Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R2 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
Public Service Enterprise Group Inc. Companies	No	Please see response to question 3 with respect to the need to define System Operations.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. To see the competencies associated with the “System Operations” topic please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf</p>		
NIPSCO	No	R2 should be replaced by “Each Transmission Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:” and leave the contents of 2.2. (listing the certificates is a nice addition to the standard). Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The NERC System Operator Certification Program is a defined program in both the Rules & Procedure Section 600 & Appendix 6.</p>		
Independent Electricity System Operator	No	Same comments as in question #4.Suggested alternative wording of R2:R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Transmission Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:2.1 Areas of Knowledge 2.1.1 Transmission Operations 2.1.2 Emergency Preparedness and Operations 2.1.3 System Operations 2.1.4 Protection and Control 2.1.5 Voltage and Reactive2.2 Valid Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
ISO RTO Council Standards Review Committee	No	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency. As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Consumers Energy Company	No	<p>The extra verbiage under “Areas of Competency” is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pepco Holdings, Inc - Affiliates	No	<p>The language in the Requirement doesn't match the language in the Measure. The sentence in R2 should read "...by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and maintain."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Xcel Energy	No	<p>The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Transmission Operator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Manitoba Hydro	No	<p>The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.</p>
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>Agree that NERC certification alone does not guarantee competency - no paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply</p>		

Organization	Yes or No	Question 4 Comment
<p>fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. The requirements in PER-003-1 focus on these “minimum competencies.”</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency”.</p>		
Alberta Electric System Operator	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator Add sub-requirement 2.1 as an exception to R2 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
BCTC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the</p>		

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Organization	Yes or No	Question 4 Comment
<p>areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
NERC PCGC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC TO Certificate. This certificate demonstrates competencies through the NERC certification process.” Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

Organization	Yes or No	Question 4 Comment
		<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
WECC Operations Training Subcommittee	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
American Transmission Company	No	<p>The proposed language could be read to have multiple compliance obligations and should be re-written to have single compliance obligations. The two compliance obligations:</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
		<p>A) Transmission Operators have NERC Certified System Operators</p> <p>B) Transmission Operators have to demonstrate minimum competency in specific areas.</p> <p>Item (A)Based on the proposed measures entities can demonstrate that they have NERC Certified System Operators by producing valid NERC certificates.</p> <p>Item (B)ATC believes that the phrase “demonstration of minimum competency” can be deleted because having NERC Certified System Operators means having System Operators that have these minimum competencies. Does this phrase require us to show evidence above and beyond the NERC Certificate? If so, then the Measures do not provide any information on the types of evidence that could be used for compliance. If not, then it is our suggestion that the SDT deleted the minimum competency list from the requirement because it is duplicative with having NERC Certified System Operators. It’s our understanding that the team is including this language “demonstrate minimum competency” to address a FERC directive but we believe that the best approach is to provide FERC with a description of the NERC Certification program and exclude the minimum competency list from this standard. We proposed the following modifications: Transmission Operators shall staff its real-time operating positions with System Operators that have one of the following valid NERC Certification. Reliability Operator Balancing, Interchange and Transmission Operator</p> <p>ATC also recommends the removal of the phrase “obtain and maintain” because the requirement requires a valid NERC Certificate. All NERC Certificates have an effective period, and is therefore redundant to require System Operators to “obtain and maintain” their NERC Certificate because an entity would be non-compliant with this Standard if they allow an individual to work the real-time desk without a valid NERC Certificate.</p>
<p>Response: The SDT has modified the body of the requirement to more clearly state that having a valid NERC certificate will demonstrate minimum competency. The requirement now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The drafting team believes that the phrase, ‘obtain and maintain’ adds clarity to the required performance.</p>		
Midwest ISO Stakeholder Standards Collaborators	No	<p>The standard as written requires minimum competency. “At least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: “Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate.” As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
		<p>obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning.</p> <p>While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p> <p>With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p>		
Transmission and Reliability (TRO), TVA	No	<p>The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p>		
FirstEnergy	No	<p>We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator</p>

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Organization	Yes or No	Question 4 Comment
		<p>Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states "... who have demonstrated minimum competency in the areas listed to obtain and maintain ...". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: "... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ..."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Duke Energy	No	<p>We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording: "Each Transmission Operator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:"</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Brookfield Renewable Power Inc	Yes	I believe our internal testing is enough for our small transmission system.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p>		
Bonneville Power Administration	Yes	

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Organization	Yes or No	Question 4 Comment
City of Tallahassee (TAL)	Yes	
Gainesville Regional Utilities	Yes	
PacifiCorp	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

5. Requirement R3 of the draft standard reads:

R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

3.1 Areas of Competency

3.1.1 Resources and Demand Balancing

3.1.2 Emergency Preparedness and Operations

3.1.3 System Operations

3.1.4 Interchange Scheduling and Coordination

3.2 Certificates

Reliability Operator

Balancing, Interchange and Transmission Operator

Balancing and Interchange Operator"

Do you agree with Requirement R3 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the "Areas of Competency" came from and that they should not be included within the standard. The SDT explained that the "Areas of competency" were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard.. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. The SDT also explained that the expectation was that the registered entity would use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

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A few commenters felt there should be an exception within the standard for trainee's. The SDT explained that they believed that the entity responsible for the operation of the BES had to be certified. However, the SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if a entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

Organization	Yes or No	Question 5 Comment
IPCo	No	area of competencies should not be part of this standard
<p>Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Hydro-Québec TransEnergie (HQT)	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. Requirement R3, item 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of</p>

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Organization	Yes or No	Question 5 Comment
		<p>Competencies will be addressed since the exam coverage areas are not the same. What is the difference between these certificates? Balancing, Interchange and Transmission Operator and Balancing and Interchange Operator</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
ISO New England Inc.	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Northeast Power Coordinating Council	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard. The real-time operating positions need to be staffed</p>

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Organization	Yes or No	Question 5 Comment
		<p>with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority.</p> <p>"Minimum competency" must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping?</p> <p>Requirement R3, sub-requirement 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p> <p>The SDT believes that possessing a valid NERC certificate provides for verification of minimum competency.</p>		
City of Tallahassee (TAL)	No	BA's should have knowledge of Voltage and Reactive Control.
<p>Response: The knowledge of "Voltage and Reactive Control" you referenced is covered in the list of competencies associated with the System</p>		

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Organization	Yes or No	Question 5 Comment
Operations topic.		
Nebraska Public Power District	No	<p>Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read:R3. "Each Balancing Authority shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.3.1 Certificates Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange Operator"</p> <p>NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are

Organization	Yes or No	Question 5 Comment
		<p>trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and concise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
MRO NERC Standards Review Subcommittee	No	<p>Concerning this Requirement, the MRO NSRS has the following concerns and request that the requirement is rewritten to read: R3. “Each Balancing Authority shall staff its real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.3.2 Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator. The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the</p>

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Organization	Yes or No	Question 5 Comment
		<p>recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real-time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted. 3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test then to update a NERC Standard. 4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program. 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. 		

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Organization	Yes or No	Question 5 Comment
<p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p>		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency and maintaining certification for the Balancing Authority is covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
ERCOT ISO	No	<p>ERCOT ISO doesn’t agree that competencies should be defined in the standard since they are already defined in the certification process.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Entergy Services	No	<p>For the reasons stated in question #3 above, we suggest R3 be changed to the following:”Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator”</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
SERC Standards Review Group	No	<p>For the reasons stated in question #3 above, we suggest R3 be changed to the following:”Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator”</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by</p>		

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Organization	Yes or No	Question 5 Comment
obtaining and maintaining one of the following valid NERC certificates”.		
Georgia System Operations Corporation	No	Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates: 1. Reliability Operator 2. Balancing, Interchange, and Transmission Operator 3. Balancing and Interchange Operator 4. Transmission Operator
Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.		
US Bureau of Reclamation	No	It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requirement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.
<p>Response: Please refer to the System Operator Certification Manual for an explanation of the different certificates and to which operating position they apply. There are four different types of system operator certifications (1. Reliability Operator, 2. Balancing and Interchange Operator, 3. Transmission Operator, and Balancing, Interchange, and 4. Transmission Operator), and of the four, the Reliability Coordinator certificate is the most comprehensive. The Reliability Coordinator certificate addresses the competencies required for the Transmission Operator certificate as well as the competencies required for the Balancing and Interchange Operator certificate and the Transmission Operator certificates. The Balancing, Interchange and Transmission Operator certificate addresses the competencies required for the Transmission Operator certificate as well as the certificate required for the Balancing and Interchange Operator certificate. Thus, if a System Operator has earned a Reliability Coordinator certificate or a Balancing, Interchange and Transmission Operator certificate, that System Operator has demonstrated competencies beyond those needed for the Balancing Authority.</p> <p>The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate.</p>		
Long Island Power Authority	No	LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Balancing Authority shall staff

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Organization	Yes or No	Question 5 Comment
		its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:"
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>It is the entity’s responsibility to provide documentation of how it complies with the requirement. The measures define how to demonstrate compliance.</p>		
E.ON U.S. LLC	No	Operators must hold one of the listed NERC certificates. Thus, adding “Areas of Competency” in the requirement is redundant and only confuses what is needed for compliance.If “demonstration of minimum competency” is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R3. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures.E.ON U.S. suggests the wording of R3 be revised to:Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R3.2.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
American Electric Power (AEP)	No	Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R3 should merely state that each registered applicable Balancing Authority (BA) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Balancing and Interchange Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R1 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.

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Organization	Yes or No	Question 5 Comment
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
American Transmission Company	No	Please see are specific comments in question 4. Proposed Modification: Each BA shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate. Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange Operator. ATC suggest that the list of minimum competency be deleted.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Public Service Enterprise Group Inc. Companies	No	Please see response to question 3 with respect to the need to define System Operations.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies referenced within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
NIPSCO	No	R3 should be replaced by “Each Balancing Authority Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:” and leave the contents of 3.2. (listing these certificates is a nice addition to the standard) Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The NERC System Operator Certification Program is a defined program in both the Rules & Procedure Section 600 & Appendix 6.</p>		

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Organization	Yes or No	Question 5 Comment
Independent Electricity System Operator	No	<p>Same comments as in question #4. Suggested alternative wording of R3:R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Balancing and Interchange Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas: 3.1 Areas of Knowledge 3.1.1 Resources and Demand Balancing 3.1.2 Emergency Preparedness and Operations 3.1.3 System Operations 3.1.4 Interchange Scheduling and Coordination 3.2 Valid Certificates</p> <ul style="list-style-type: none"> o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
ISO RTO Council Standards Review Committee	No	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency. As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

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Organization	Yes or No	Question 5 Comment
Pepco Holdings, Inc - Affiliates	No	The language in the Requirement doesn't match the language in the Measure. The sentence in R3 should read "...by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and maintain."
<p>Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Xcel Energy	No	The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. Balancing Authority This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each could be condensed into a table.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>The real-time System Operators working for Balancing Authorities and Transmission Operators play a critical role in support of reliability and having these System Operators obtain a certification relevant to their job duties is a "defense in depth" strategy in support of reliability.</p>		
Manitoba Hydro	No	The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence</p>		

Organization	Yes or No	Question 5 Comment
<p>is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency”.</p>		
Alberta Electric System Operator	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each BA shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator Add sub-requirement 3.1 as an exception to R3 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
BCTC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by</p>		

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Organization	Yes or No	Question 5 Comment
<p>obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
NERC PCGC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC BA Certificate. This certificate demonstrates competencies through the NERC certification process.” Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid the wording read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		

Organization	Yes or No	Question 5 Comment
		<p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
WECC Operations Training Subcommittee	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
Consumers Energy Company	No	<p>The role the individual has within the company may not be consistent with the registration of the company. For example, Consumers Energy is registered has a BA, however the role of Controllers may make TO certification more applicable in making them proficient at their job. The activity, not the company registration, should determine the appropriate certification. The extra verbiage under “Areas of Competency” is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has</p>

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Organization	Yes or No	Question 5 Comment
		control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.
<p>Response: The SDT feels that it is better to tie certification to registration to provide clarity and remove any ambiguity. You have the option to upgrade your certification.</p> <p>The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Midwest ISO Stakeholder Standards Collaborators	No	The standard as written requires minimum competency. “At least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: “Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate.” As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p> <p>With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p>		

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Organization	Yes or No	Question 5 Comment
Transmission and Reliability (TRO), TVA	No	<p>The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p>		
FirstEnergy	No	<p>We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states "... who have demonstrated minimum competency in the areas listed to obtain and maintain ...". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: "... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ..."</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		

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Organization	Yes or No	Question 5 Comment
Duke Energy	No	We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording: "Each Balancing Authority shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:"
<p>Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	
Gainesville Regional Utilities	Yes	
PacifiCorp	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

6. Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters did not believe that the purpose matched the measures. The standards process does not require that the measures tie to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is evidence that the responsible entity’s System Operators have obtained and maintained a valid NERC Certificate.

Some commenters did not believe that the documentation required to show compliance should be stated in the measure or stated that the measure was not clear on what was needed to reflect compliance. The SDT explained that for these requirements, some of the evidence isn’t “flexible” and must be clearly stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.

Some commenters indicated that it is not necessary to have a copy of each System Operator’s NERC certificate on file. The SDT modified Measure M1.3 to provide greater flexibility in how to demonstrate compliance. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.

A few commenters indicated that there should be some allowance within the measure for transition to a back-up control center. The SDT explained that it believed that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.

Organization	Yes or No	Question 6 Comment
Manitoba Hydro	No	: The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. If the intent to ensure Operating personnel has the proper certification then this is all that should be in this standard and no mention of competency.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term</p>		

Organization	Yes or No	Question 6 Comment
<p>“competency”. The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Xcel Energy	No	<p>A copy of an operator's NERC certificate is not strong evidence of certification and leads organizations to keep track of vitrually worthless pieces of paper or files. Is there something (seal, hologram, mag strip) on the certificate itself that would indicate its authenticity? A more robust method is to verify the individual has an active certifcate as listed in the NERC database.In general, the measures should not limit the methods for demonstrating compliance to those methods listed. It should indicate that other methods may be acceptable.</p>
<p>Response: The SDT believes that evidence of compliance must come from the responsible entity. The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>		
BCTC	No	<p>Add measures section from PER-003-0 regarding when in transit to backup center.</p>
<p>Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group wqould take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
American Transmission Company	No	<p>ATC agrees with the measure as written but believe that the requirements and purpose statement need to be modified to match. See our comments to Questions 1, 3, 4 and 5</p>
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is evidence that the responsible entity’s System Operators have obtained and maintained a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each (RC TO BA) shall staff its Real-time operating positions performing (RC TO BA) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. 		

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Organization	Yes or No	Question 6 Comment
Hydro-Québec TransÉnergie (HQT)	No	<p>Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the requirement R1.1 in the existing Version 0 Standard ...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft.</p> <p>A copy of each of the real-time operating personnel’s NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database.</p> <p>The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005).The measures need to clearly state that they only apply to those operators who have primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.</p>
<p>Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency. A System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
Northeast Power Coordinating Council	No	<p>Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard ...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft.</p> <p>A copy of each of the real-time operating personnel’s NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database.</p> <p>The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of</p>

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Organization	Yes or No	Question 6 Comment
		<p>the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005)The measures need to clearly state that they only apply to those operators who have primary responsibility.</p>
<p>Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. A System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
ERCOT ISO	No	<p>ERCOT ISO suggests the measures be revised to say “Each Reliability Coordinator, Transmission Operator and Balancing Authority shall show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate. Evidence may include:”</p>
<p>Response: The SDT believes that in order to provide for evidence of compliance the documentation required should be stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.</p>		
Long Island Power Authority	No	<p>LIPA points out that similar to our prior comment the measurement does not speak to the phrase of "demonstrating minimum competencies required to obtain and maintain a valid NERC Certificate", rather only the possession of a valid NERC certificate is indicated. Since NERC Auditors utilize the Standard's requirement and not the Standard's measurement as the benchmark for compliance, LIPA suggests that the measurement be utilized to refine the phrasing of the requirement. Similar to the previous comment, the measurement should be specific to those real time operating positions responsible for the control of the BES. We suggest the following: Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its real-time operating positions responsible for the control of the BES with System Operators that have an appropriate, valid NERC certificate".</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

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Organization	Yes or No	Question 6 Comment
Duke Energy	No	Measure M1.3 should be revised to only require a list of NERC-certified personnel with their NERC certification numbers and expiration dates. The actual certificates reside with NERC.
<p>Response: The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>NERC maintains the database with certificate records but the actual certificate resides with the entity.</p>		
FirstEnergy	No	Regarding M1.3, the entity may not specifically have copies of every operator's certification. We feel that all that is necessary is to show evidence of valid certificate numbers.
<p>Response: The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>		
Entergy Services	No	The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing “shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:” to “shall have evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate that may include:”.
<p>Response: Compliance for these three requirements is measured in the same way and therefore, it is more efficient to only state the measure once. The SDT believes that in order to provide for evidence of compliance, the documentation required should be stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.</p>		
Midwest ISO Stakeholder Standards Collaborators	No	The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing “shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:” to “shall have evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate that may include:”.

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Organization	Yes or No	Question 6 Comment
<p>Response: Compliance for these three requirements is measured in the same way and therefore, it is more efficient to only state the measure once. The SDT believes that in order to provide for evidence compliance, the documentation required should be stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.</p>		
IPCo	No	The measure should be what is required to show compliance.
<p>Response: The SDT feels that the measures reflect what is necessary to show compliance with the requirement(s).</p>		
Alberta Electric System Operator	No	The measurements do not address competencies as stated in the requirements. However, this in not an issue if the list of competencies is removed from the standard. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center.
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
Pacific Gas and Electric Company	No	The measurements do not address competencies as stated in the requirements. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center.
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
WECC Operations Training	No	The measurements do not address competencies as stated in the requirements. There is also no allowance

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Organization	Yes or No	Question 6 Comment
Subcommittee		<p>for emergencies, we suggest a measure as stated in PER-003-0 M1.2 “During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours.” Add measures section from PER-003-0 regarding when in transit to backup center.</p>
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
ISO RTO Council Standards Review Committee	No	<p>The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft. There are no measures for the sub-requirements of areas of competency. These should be removed from the requirement.</p>
<p>Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity. Based on stakeholder comments, the requirements were all modified for greater clarity.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>		
Platte River Power Authority Operations Group	No	<p>The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not applicable to. It should read:...with Reliability Coordinator, Transmission Operator and Balaancing Authority system operators that have an appropriate, valid NERC certificate (R1, R2, R3):</p>
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p>		
Pepco Holdings, Inc - Affiliates	No	<p>The wording in the Measures paragraph should be changed to match the language in the requirements “... staffed its real-time operating positions with System Operators who have demonstrated the appropriate</p>

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Organization	Yes or No	Question 6 Comment
		competencies by obtaining the appropriate valid NERC Certificate.”
<p>Response: The SDT disagrees that the Measure should mimic the language in the Requirement. The SDT believes that the Measure should state how an entity is to prove that they were compliant with the requirement.</p>		
Nebraska Public Power District	No	<p>These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.</p> <p>In addition, measures 1.1, 1.2 & 1.4 should include the phrase “responsible for the control of the Bulk Electric System” to modify the term real-time operating positions to better align with the purpose. The term “real-time operating positions” is unclear and ambiguous and not defined. There needs to be clarity on which positions fall under this standard.</p>
<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT disagrees that the Measure should mimic the language in the Purpose.. The SDT believes that the Measure should state how an entity is to prove that they were compliant with the requirement.</p>		
MRO NERC Standards Review Subcommittee	No	<p>These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its Real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.</p>

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Organization	Yes or No	Question 6 Comment
<p>Response: The SDT disagrees that the Measure is supposed to explain what the requirement is requesting. The SDT believes that the Measure should state how an entity is to prove that they were compliant with the requirement.</p>		
<p>American Electric Power (AEP)</p>	<p>No</p>	<p>While AEP agrees with the measure and sub-measures that are identified in the revised standard, we are concerned with the loss of the content from Measure M1 of the last version. As previously described, AEP believes that the M! language should be maintained, but as a requirement rather than as a measure. Correspondingly, we suggest either the former measure be added as a sub-requirement or notation in requirements R1, R2, and R3, or the former measure be added as an additional requirement in the following format:R4. Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall have NERC-certified operating personnel on shift in required positions at all times with thefollowing exceptions: R4.1 While in training, an individual without the proper NERC certification credential maynot independently fill a required operating position. Trainees may perform criticaltasks only under the direct, continuous supervision and observation of the NERC certifiedindividual filling the required position. R4.2 During a real-time operating emergency, the time when control is transferred from aprimary control center to a backup control center shall not be included in thecalculation of non-compliance. This time shall be limited to no more than four hours.</p>
<p>Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
<p>City of Tallahassee (TAL)</p>	<p>Yes</p>	<p>However, What are the auditors going to look for me to prove? Are they going to ask me to prove that each certificate issued (or renewed)asked questions from the applicable competencies? This would be above the Measures as written, so how do we get Compliance to acknowledge this? This information will need to come from the Certification Process and that record keeping.</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p>		

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Organization	Yes or No	Question 6 Comment
ISO New England Inc.	Yes	<p>The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard..."Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft.</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity. Each of the three requirements was modified – the requirement for the Reliability Coordinator was changed to read as follows:</p> <p>Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate.: (followed by a list of topics that serve as the basis for the relevant certification exam)</p>		
South Carolina Electric and Gas	Yes	<p>While we do agree with the Measure for the requirements of this standard, we do NOT agree with removal of the exceptions (M1.1 and M1.2) from the Measure in PER-003-0. These exceptions involve trainees (M1.1) and transferring control from a PCC to a BCC(M1.2).</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p>		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	

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Organization	Yes or No	Question 6 Comment
Consumers Energy Company	Yes	
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
PacifiCorp	Yes	
Public Service Enterprise Group Inc. Companies	Yes	
SERC Standards Review Group	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
E.ON U.S. LLC		
NIPSCO		No comment at this time
NERC PCGC		No opinion

7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt the “High” VRF rating was too high and that it should be no higher than Medium. The SDT explained that the current standard contains a High VRF. The SDT believes that this is appropriate with the definition of a high VRF:

High Risk Requirement

A requirement that, if violated, **could** directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

The SDT also stated it was not saying that non-compliance **would** necessarily lead to instability, separation or cascading outages. However, in the event of an emergency an unqualified System Operator may not know what to do and therefore the System Operator’s actions or inactions **could** directly cause or contribute to BES instability, separation, or cascading outages, or could place the BES at an unacceptable risk of instability, separation or cascading outages.

Some commenters stated that they felt there should be differentiation between small and large entities due to the differing impacts on the reliability of the BES. The SDT explained that they believed that due to the fact that an entity was registered as one of the applicable entities implied that you could have an effect on the reliability of the BES. The size of an entity is one factor that the Compliance Enforcement Authority may consider when determining the size of a penalty or sanction for noncompliance.

A few of the commenters felt there should be an exception for trainees. The SDT explained that the individual responsible for the operation of the BES must be certified and that this standard was not allowing for exceptions. The SDT further explained that allowing exceptions within the standard could allow for violation of the requirement during conditions that did not warrant said actions. Instead, the SDT believes that if the conditions warranted violating a requirement, the audit group would consider all of the pertinent information regarding the violation prior to assessing a violation. However, the SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”

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Organization	Yes or No	Question 7 Comment
ERCOT ISO	No	Failure to have a certified System Operator on a single shift does not necessarily lead directly to cascading outages, blackout, etc. A high Violation Risk Factor (VRF) presumes incorrectly that the System Operator hasn't been trained and that no other System Operators are involved in making decisions. ERCOT ISO recommends a low or medium VRF for each of the requirements.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions could result in BES instability, separation, or cascading outages.</p>		
City of Tallahassee (TAL)	No	High VRF is too high. Failure to be certified in and of itself does not pose the threat to the BES. The ACTIONS, and the results of those actions, by the System Operator is the threat. Those threats are covered by other standards VRF's.
<p>Response: The SDT agrees with your comment that it is the actions, or possibly inactions, is the threat. However, in the event of an emergency an unqualified operator may not know what actions to take and therefore incorrect actions or lack of action could result in BES instability, separation, or cascading outages. In addition, the current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF.</p>		
Gainesville Regional Utilities	No	I disagree with the violation risk factors unless they are applied based on the affect of the Bulk Electric System , not aan individual system. In other wordsa 10,00 Mw system may have a higher vsI due to magnitude alone as compared to a 100 Mw system.
<p>Response: The SDT believes that the fact that you are registered as one of the applicable entities implies that you have an effect on reliability. The Sanction Guidelines give the Compliance Enforcement Authority the authority to consider the size of an entity as a factor in determining the size of a penalty or sanction.</p>		
Brookfield Renewable Power Inc	No	It does not consider a small transmission system inside a large system. Our system is basically a tap into HQ grid.
<p>Response: The SDT believes that the fact that you are registered as one of the applicable entities implies that you have an effect on reliability. The Sanction Guidelines give the Compliance Enforcement Authority the authority to consider the size of an entity as a factor in determining the size of a penalty or sanction.</p>		
Transmission and Reliability (TRO), TVA	No	It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. Because it presents an indirect risk, we

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Organization	Yes or No	Question 7 Comment
		recommend a low or medium VRF for the requirements.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p>		
Manitoba Hydro	No	It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don’t match the requirements will not hit the target for improving reliability.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
BCTC	No	Not defined.
<p>Response: The SDT does not have sufficient information to understand your concern as you have stated it.</p>		
IPCo	No	Risk factors should include levels of non-compliance in current PER-003 in this standard
<p>Response: The SDT believes that you may have confused VRFs with VSLs. The VRF measures the affect non-compliance could have on the BES. The VSL measure hw significantly the requirement was violated.</p>		
Nebraska Public Power District	No	The Bulk Electric System will not necessarily fail if a non-certified System Operator is operating the system. Conversely there could be a cascading, uncontrolled separation and instability if a certified System Operator was on-shift. If other standards are followed, having certified personnel won’t lead to a collapse of the Bulk Power System (we operated for years without certified operators). The Violation Risk Factor should be no higher than Medium.

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Organization	Yes or No	Question 7 Comment
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p>		
US Bureau of Reclamation	No	<p>The lack of certification may not be the same as competency. Certification is not same as competency based on the current process for achieving certification. If the certification was tied to known failures to follow procedures, an argument could be made that a risk for that operator is higher. Otherwise, there is no imminent threat by the operator who failed to report on hour of training needed to keep certification current.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p> <p>In addition, the proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
Georgia System Operations Corporation	No	<p>The violation risk factor should be set between low and medium but not high. An improper NERC certificate does not warrant a high risk to the BES if the operator has the correct knowledge but not the correct certificate.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p> <p>In addition, the proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		

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Organization	Yes or No	Question 7 Comment
Platte River Power Authority Operations Group	No	The Violation Severity Levels are included in the draft of the standard, however, we weren't able to find the Violation Risk Factors.
Response: The VRF is located at the end of each of the requirements.		
Midwest ISO Stakeholder Standards Collaborators	No	<p>The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained.</p> <p>Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or cascading outages.</p> <p>In addition, the proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p> <p>The criteria for a High VRF states, "A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . ."</p>		
Xcel Energy	No	The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained.

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Organization	Yes or No	Question 7 Comment
		<p>Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements.</p>
<p>Response: Violation Risk Factors are assessments of the potential risk to the BES associated with a violation of the associated requirement. The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or cascading outages.</p> <p>The criteria for a High VRF states, "A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . ."</p>		
Entergy Services	No	<p>This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs for R1, R2 & R3 should be shown as LOW.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or cascading outages.</p> <p>The criteria for a High VRF states, "A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . ."</p>		
SERC Standards Review Group	No	<p>This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs for R1, R2 & R3 should be shown as LOW.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or</p>		

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Organization	Yes or No	Question 7 Comment
<p>cascading outages. The criteria for a High VRF states, “A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . . ”</p>		
MRO NERC Standards Review Subcommittee	No	
American Electric Power (AEP)	Yes	
Bonneville Power Administration	Yes	
Duke Energy	Yes	
FirstEnergy	Yes	
Hydro-Québec TransEnergie (HQT)	Yes	
Independent Electricity System Operator	Yes	
Long Island Power Authority	Yes	
Northeast Power Coordinating Council	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
South Carolina Electric and Gas	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
WECC Operations Training Subcommittee	Yes	
Southern Company Transmission		There is no VRF matrix in this standard.
Response: The VRF is located at the end of each requirement.		
NIPSCO		No comment at this time.
NERC PCGC		No opinion

8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt that there should be lower VSL's and not just "severe" and that there could be circumstances that would not allow for compliance to the standard. The SDT explained that they believed the Real-time operation of the power system was dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times. If there is ever a situation where there is not a certified System Operator in a real-time position that has demonstrated the minimum competencies needed for a NERC certificate, then the intent of this requirement has been missed – and this meets the criteria for assignment of a Severe VSL and the SDT has implemented a binary approach to the VSLs.

The SDT believes this approach is conducive to encouraging the appropriate behavior and meets the intent of NERC's VSL Guidelines and FERC's VSL Guidelines.

Some commenters indicated that the VSLs should be linked to a specific incident occurring, and the team noted that the Sanction Guidelines provide the Compliance Enforcement Authority the latitude to consider mitigating and aggravating factors when determining the size of a penalty or sanction, looking at the complete situation at the time of the violation and intent of the entity regarding staffing.

A few entities stated that they believed there should be varying VSLs dependent upon an entity's registration. The Sanction Guidelines give the Compliance Enforcement Authority the latitude to consider the size of an entity as a factor when determining the size of a penalty or sanction associated with noncompliance. The SDT also believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. The SDT further explained that while the Reliability Coordinator's System Operators have the highest level of operating authority to take whatever action is necessary to preserve reliability of the BES, the Transmission Operator's System Operators and the Balancing Authority's System Operators are the first line of defense and also play a critical role in taking preventive and corrective actions.

Organization	Yes or No	Question 8 Comment
American Electric Power (AEP)	No	AEP believes that the functional model and Standard hierarchy, with the Reliability Coordinator being the ultimate authority issuing directives, may suggest different violation severity levels. Although it is definitely understood that each registered applicable entity could have a significant impact in the reliability of the BES, there are inherently differently levels of potential impact related to the specific reliability related job tasks. Therefore, the SDT should reconsider the VSLs based on these differences.
<p>Response: The SDT believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. While the Reliability Coordinator's System Operators have the highest</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
<p>level of operating authority to take whatever action is necessary to preserve reliability of the BES, the Transmission Operator's System Operators and the Balancing Authority's System Operators are the first line of defense and also play a critical role in taking preventive and corrective actions.</p>		
Platte River Power Authority Operations Group	No	<p>Although we understand that FERC is most likely not in agreement, it would seem appropriate to have criteria for Lower, Medium and High Severity Levels opposed to an all or nothing approach.</p>
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
Pacific Gas and Electric Company	No	<p>Comments: The VSL should take into consideration various levels of non-compliance, such as those in PER-003-0. PER-003 listed four levels of non-compliance in which the entity did not meet the requirement for a total time between 0-72 hours during a one month period. Certain circumstance may warrant situations in which an entity may not be able to comply with the staffing requirements.</p>
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
ERCOT ISO	No	<p>ERCOT ISO thinks that Violation Severity Levels (VSLs) should be based on the number of System Operators that don't have the proper NERC certification.</p>
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. In addition, FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		

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Organization	Yes or No	Question 8 Comment
Hydro-Québec TransEnergie (HQT)	No	Everything is a “Severe.” While we agree with the principle of having a NERC certified operator present at all times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
Northeast Power Coordinating Council	No	Everything is a “Severe.” While we agree with the principle of having a NERC certified operator present at all times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
SERC Standards Review Group	No	For the reasons stated in question # 7 above, a violation of these requirements should not be considered severe. However, we are aware of the drafting team’s constraint to assign only a Severe VSL to standard requirements that are binary in nature.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
Entergy Services	No	For the reasons stated in question # 7 above, if a violation is found, the VSL should be shown as LOWER VSL to MEDIUM VSL.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. In addition, FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with</p>		

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Organization	Yes or No	Question 8 Comment
Requirement R1 a Severe VSL.		
Midwest ISO Stakeholder Standards Collaborators	No	In Paragraph 27 of the June 19, 2008 Order on Violation Severity Levels Proposed by the Electric Reliability Organization, the Commission expressed “as a general rule, gradated Violation Severity Levels, wherever possible , would be preferable to binary Violation Severity Levels”. Based on the Commission’s preference, we suggest VSLs could be based on the number of System Operators that don’t have the proper certification. Four levels should be created.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. Note that while the VSL Order referenced does indicate a preference for multiple levels of VSLs where appropriate, FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
Manitoba Hydro	No	It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don’t match the requirements will not hit the target for improving reliability.
<p>Response: The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
BCTC	No	RC should have a higher severity level than TO or BA.
<p>Response: The SDT believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
Transmission and Reliability	No	Recommend a gradation of severity levels be developed. A severe VSL for all violations does not

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Organization	Yes or No	Question 8 Comment
(TRO), TVA		appropriately reflect the degree by which an entity has failed to meet the requirement.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
US Bureau of Reclamation	No	The lack of certification may not be the same as competency. As such the severity level should be consistent with those associated with documentation.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The VSL focuses on the requirement – which is to staff with System Operators who have valid NERC certificates.</p>		
Georgia System Operations Corporation	No	The violation severity levels should be high if the operator does not have a NERC certificate at all. A medium violation severity level should be set if the operator has an improper NERC certificate.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
WECC Operations Training Subcommittee	No	The VSL should take into consideration various levels of non-compliance, such as those in PER-003-0. PER-003 listed four levels of non-compliance in which the entity did not meet the requirement for a total time between 0-72 hours during a one month period. Certain circumstance may warrant situations in which an entity may not be able to comply with the staffing requirements.
<p>Response: The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL.</p>		

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Organization	Yes or No	Question 8 Comment
<p>The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
Xcel Energy	No	The VSLs appear to be incomplete.
<p>Response: The SDT does not have enough information to provide a response to your comment.</p>		
E.ON U.S. LLC	No	<p>The VSLs assume all RT operating positions are staffed at all times - this may not always be true. For example, during off-peak periods RT operating positions may be combined and covered by fewer individuals. The standard should not dictate that all potential RT operating positions need to be staffed at all times. The entity will determine adequate staffing levels with the standard requiring that such positions be staffed by certified personnel.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The VSLs were revised to use the same language as the revised requirements – as shown with the VSL for R1:</p> <p>R1 Severe VSL: The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with an individual having a valid NERC certificate as defined in Requirement R1.</p> <p>The SDT disagrees that the VSL is assuming that all Real-time operating positions are filled at all times. The SDT believes that the VSL is stating that if a Real-time operating position is being filled it must be filled with a NERC Certified System Operator.</p>		
Brookfield Renewable Power Inc	No	There is not time to have operators trained first.
<p>Response: The SDT has modified the timeline to have operators certified to twelve months after FERC approval.</p>		
City of Tallahassee (TAL)	No	<p>There is no caveat for the old "emergency clause" for transitioning to a Back Up Facility. The current Version 0 includes this in Measure M.1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours."</p>

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Organization	Yes or No	Question 8 Comment
<p>Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
Nebraska Public Power District	No	There should be differing severity levels based on the amount of time a non-certified operator worked unsupervised. Having a non-certified operator work one shift is much less severe than having all non-certified operators. The matrix should reflect the differing severity.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
IPCo	No	violation factors should include levels of non-compliance in current PER-003 in this standard
<p>Response: The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL.</p> <p>The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
Gainesville Regional Utilities	No	
NERC Standards Review Subcommittee	No	
Bonneville Power Administration	Yes	
Duke Energy	Yes	
FirstEnergy	Yes	
Independent Electricity System Operator	Yes	

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Organization	Yes or No	Question 8 Comment
Long Island Power Authority	Yes	
NIPSCO	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
NERC PCGC		No opinion

9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area.

Summary Consideration: A few commenters did not agree with the six month window for compliance with the standard. The SDT explained that they believed that due to lack of negative comments received the industry was in support of our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental authority acceptance.

A few of the commenters appeared to be confusing PER-003 with PER-005. The SDT explained that PER-005 addressed training and was not to be confused with this standard which addresses certification.

Organization	Yes or No	Question 9 Comment
Platte River Power Authority Operations Group	No	Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and 5 the implementation of this standard should not take effect until PER-005-1 is effective.
<p>Response: PER-005 addresses training and is not to be confused with this standard which addresses certification.</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental acceptance.</p>		
Hydro-Québec TransEnergie (HQT)	No	If all control room operators need to be certified whatever their functions, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC certified. It should be only those that are primarily responsible, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.(i.e. give directives).
<p>Response: The requirements, measure and VSLs in the standard were all revised to clarify that only those System Operators who are in Real-time operating positions performing reliability-related tasks need to have the associated NERC certification.</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental acceptance.</p>		
Northeast Power Coordinating Council	No	If all control room operators need to be certified, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC

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Organization	Yes or No	Question 9 Comment
		certified. It should be only those that are primarily responsible (i.e. give directives).
<p>Response: The requirements, measure and VSLs in the standard were all revised to clarify that only those System Operators who are in Real-time operating positions performing reliability-related tasks need to have the associated NERC certification.</p> <p>The SDT has modified the effective date to allow entities additional time to become compliant. The effective date has been changed to 12 months after FERC acceptance.</p>		
Brookfield Renewable Power Inc	No	It is too quick to implement plan.
<p>Response: The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.</p>		
NERC PGC	No	PCGC feels it is unclear as to what the full ramifications this standard may have on the certification process. A full study will be needed if this standard does cause changes to the certification process, and therefore could drastically affect the implementation plan.
<p>Response: This standard supports the certification process by requiring that entities use the process, but there is nothing in this standard that should cause a change to the certification process.</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.</p>		
Long Island Power Authority	No	The implementation Plan allows 6 to 9 months after approval for a Registered Entity to obtain certification for System Operators. LIPA is utilizing this comment to remind NERC to have the facilities to provide certification to those System Operators in a timely manner.
<p>Response: The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.</p>		
American Transmission Company	Yes	ATC does agree with the proposed effective date if the evidence to demonstrate compliance is limited to showing that our System Operators have a valid NERC Certificate.
<p>Response: The SDT believes that the responsible entities need to have evidence that shows not only that all System Operators have a valid NERC Certificate (M1.3) – but also have evidence in M1.1, M1.2, and M1.4. .</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the</p>		

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Organization	Yes or No	Question 9 Comment
timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.		
Alberta Electric System Operator	Yes	
American Electric Power (AEP)	Yes	
BCTC	Yes	
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
Nebraska Public Power District	Yes	
NERC Standards Review Subcommittee	Yes	

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Organization	Yes or No	Question 9 Comment
NIPSCO	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
SERC Standards Review Group	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	
Manitoba Hydro		As long as the comments for standard are reviewed and standard resubmitted for review.
<p>Response: The SDT has modified the proposed standard and the standard will be posted for an additional comment period.</p>		

10. In In FERC Order 693 the Commission directed the ERO to consider “grandfathering” of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows:

Do you agree with the proposed concept that “grandfathering” not be allowed? If not, please explain in the comment area.

Summary Consideration: A few of the commenters disagreed with the SDT and felt that “grandfathering” of System Operators should be allowed. The SDT explained that it believes that due to the lack of negative comments received the industry is in support of not allowing grandfathering. The SDT believes that an experienced operator should have the knowledge level to pass an exam as demonstrated by the SDT’s research shown in the comment form:

System Operator Passing Rates			
Operators that took a NERC Certification Exam	Operators that successfully passed a NERC Certification Exam	Operators that required more than one attempt to pass a NERC Certification Exam	Operator with previous experience operating the BES unable to pass a NERC Certification Exam
200	196	14	0

In addition, passing a certification exam is the only way NERC can document that the individual at least had the minimum competency level necessary.

One commenter stated that there were labor issues that would need to be settled. The SDT does not have any evidence that this is a widespread industry issue and the timeline for implementing this standard. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.

In addition, the implementation plan has been lengthened (from six months to twelve months) and should allow time to address these issues.

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Organization	Yes or No	Question 10 Comment
South Carolina Electric and Gas	No	Grandfathering should be allowed under this standard. If an individual has been performing their job for years as a system operator, We don't believe taking a certification exam will make them any more competent than they were prior to the exam. We don't believe there will be any benefits in terms of reliability of the BES or knowledge level. Operators that have been performing a system operator job for years obviously have a "minimum" knowledge level and forcing them to take and pass an exam would provide little or no benefit. We would agree to phasing out the "grandfathering" over a period of years, however we feel that the funds needed for this training and certification can be better utilized elsewhere.
<p>Response: The SDT believes that an experienced operator should have the knowledge level to pass an exam as demonstrated by the SDT's research shown in the comment form. Also, passing a certification exam is the only way NERC can document that the individual at least has the minimum competency level necessary.</p> <p>The SDT also believes that due to the lack of negative comments received the industry is in support not allowing grandfathering.</p>		
Brookfield Renewable Power Inc	No	I believe the standard to which our operators were trained was to the same level as the HQ operation staff.
<p>Response: The SDT feels that enough information was not provided to be able to respond to your comment.</p>		
E.ON U.S. LLC	No	If the proposed no "grandfathering" applies only to individuals pursuing initial certification then the approach seems appropriate. However, individuals seeking re-certification via the CEH process should not also be subject to overall/comprehensive certification exams. The re-certification process requires exams to earn CEH credits. This should suffice
<p>Response: The SDT believes that due to the lack of negative comments received the industry is in support not allowing. Grandfathering was proposed, as you suggest, only for the initial certification.</p> <p>The topic of certification renewal is outside the scope of the industry approved SAR on which this standard is based, and is not being considered within this standard. This standard does, however, require System Operators to "maintain" their certification – and the CEH process is the mechanism in place for maintenance of certifications.</p>		
NIPSCO	No	<p>We generally agree with sections B & D above.</p> <p>In A. we disagree with the last sentence: "Passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator". PER-005 requires that operators be trained in what they do. Through audits, spot checks and self certification compliance to this will be reviewed by the regions and NERC.</p> <p>In Section C. We disagree with the sentence: "Overall labor relations issues that arose due to the NERC</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
		<p>System Operator Certification requirements have, for the most part, already been settled.” This is still a major issue that has not yet been resolved.</p> <p>I think it’s interesting to note that the word “competency” does not appear in the above items A-D however “knowledge” is used numerous times. Should “knowledge” be used in the standard in place of competency ?</p>
<p>Response: The SDT thanks you for your agreement on B & D.</p> <p>As for Item A the SDT pointed to the certification as the only available method for NERC to ensure minimum knowledge. We should have stated that the passing a certification examination is NERC’s only available method to verify the initial minimum competency level of a system operator. In addition, generally grandfathering only applies to the initial process.</p> <p>With regards to Section C the SDT does not have evidence that this is a widespread industry problem. However, the timeline for implementing this standard has been adjusted based on comments received.</p> <p>The SDT would like to thank you for pointing out where the term knowledge was used in place of competency. Competency is the correct word for use in this standard. While the original Certification exams focused solely on recall-type questions, as the exams have evolved they have become more complex and now include fewer “recall” type questions and more “application” and “assessment” type questions where the candidate must demonstrate the ability to apply knowledge to a set of scenarios, which is testing competencies.</p> <p>The SDT believes that due to the lack of negative comments received the industry is in support of not allowing grandfathering.</p>		
Gainesville Regional Utilities	Yes	<p>At this juncture I agree since to operate a system the certification that came about was "required" and all System Operators took the tests and received their certification in their respective areas. I beleve at the time some individuals could have been grandfathered in. Not anymore, due to no apparent reason.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment.</p>		
American Transmission Company	Yes	<p>ATC agrees that grandfathering should not be allowed as a replacement for a valid NERC Certification.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment.</p>		
City of Tallahassee (TAL)	Yes	<p>However, paragraph B is not entirely correct. When Version 0 standards were adopted, we had three senior operators retire after they were unsuccessful in completing NERC Certification.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. The SDT was not implying that this couldn’t happen, only that our survey did not support your findings.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
NERC Standards Review Subcommittee	Yes	The MRO NSRS agrees that grandfathering should not be allowed as a replacement for a valid NERC certification.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
Hydro-Québec TransÉnergie (HQT)	Yes	The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue as it relates to reliability. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing any FERC Orders.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
Northeast Power Coordinating Council	Yes	The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing FERC Orders.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
ISO New England Inc.	Yes	We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
ISO RTO Council Standards Review Committee	Yes	<p>We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.</p> <p>We would like to comment on the Passing Rates - a better sample of data should have been obtained. This data reflects a 2% failure rate. Considering normal distribution, the data presented reflects either that statistical analysis was inadequate for the sample or the cutoff score for the exam may need to be changed.</p>
Response: The SDT acknowledges your affirmative response and clarifying comment.		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
The SDT realizes that the sample was insufficient for a representative accounting. The SDT was limited in its access to data.		
Alberta Electric System Operator	Yes	
American Electric Power (AEP)	Yes	
BCTC	Yes	
Bonneville Power Administration	Yes	
Consumers Energy Company	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
Long Island Power Authority	Yes	
Manitoba Hydro	Yes	
Midwest ISO Stakeholder Standards Collaborators	Yes	

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Organization	Yes or No	Question 10 Comment
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
Platte River Power Authority Operations Group	Yes	
SERC Standards Review Group	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	

11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process.

Do you agree with the method the SDT has used to meet the FERC directive? If not, please explain in the comment area.

Summary Consideration: Some commenters did not feel that minimum competencies should be included within a standard and that including them would be a violation of the PCGC charter. The SDT explained that it was responding to FERC Order 693 which contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The SDT further explained that it did not have sufficient information concerning the comment about “violation of Personnel Certification Governance Committee (PCGC) Charter” to satisfactorily address the issue.

Some commenters questioned how “minimum competency” would be verified. The measure requires verification by obtaining and maintaining a NERC Certificate.

A few commenters tried to provide other means of demonstrating minimum competency rather than including them within a Standard. The methods suggested by commenters did not identify an equally effective and efficient alternative to that proposed by the SDT.

A few commenters also expressed a desire for a standard for the ERO to guarantee competency. The development of a standard applying to the ERO is outside the scope of the industry approved SAR - if stakeholders feel a need for the development of such a standard, they can submit a SAR through the Standards Development Process.

A couple of commenters felt that the functional entity had no responsibility or recourse for the design of the certification process and therefore should not be held accountable for anything they could not control. The certification program is under the governance of the PCGC which is composed of representatives from the functional entities. The STD further explained that the actual exam questions were written by the Exam Working Group which is also composed of representatives from the functional entities.

Organization	Yes or No	Question 11 Comment
FirstEnergy	No	Although we agree that the SDT has done everything they can to meet the FERC directive, we do not agree that minimum competencies must be spelled out in the standard since obtaining a NERC Certificate already proves you demonstrate the minimum competencies. Please refer to our comments in Questions 3, 4, and 5.
Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
<p>Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p>		
Gainesville Regional Utilities	No	<p>I can't agree as to how specifically addressed competencies should be addressed. If a system operator can perform the necessary functions to keep s specific company reliable, how are these proposed competencies going to be investigated as to what depth of "competency? Who's decision will that be, The Entity, NERC, FERC, IEEE? Clarification may be in order</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides verification of an operator’s minimum competency. The “Areas of competency” referenced in the standard were extracted from the NERC System Operator Certification Program and serve as the basis for the certification exams. The competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
American Electric Power (AEP)	No	<p>In brief, while AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that the competencies be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual.Please reference the comments provided in Question 1 for the basis for this belief.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p>		
Nebraska Public Power District	No	<p>In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and Å§ 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that:</p> <p>(1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and</p> <p>(2) identifies the minimum competencies operating personnel must demonstrate to be certified.</p> <p>FERC has not stated that competencies must be a NERC Standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC Certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program adjust competencies as required to meet changing demands without the time needed to go through the standards development process.We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
		SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies.
<p>Response: We disagree that the FERC directive did not mandate the addition of minimum competencies. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
MRO NERC Standards Review Subcommittee	No	<p>In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and Â§ 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified .FERC has not stated that competencies must be a NERC standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program to adjust competencies as required to meet changing demands without the time needed to go through the standards development process.We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies.</p>
<p>Response: We disagree that the FERC directive did not mandate the addition of minimum competencies. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
Brookfield Renewable Power Inc	No	It does not recognize other training

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Organization	Yes or No	Question 11 Comment
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The topic of additional training is covered in PER-005.</p>		
Pepco Holdings, Inc - Affiliates	No	No, if the language change is not adopted. Yes, provided the changes to the language in the requirements and the measures statements is adopted as we proposed.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Entergy Services	No	Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator’s skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Agree – however the NERC Certification exams do provide confirmation of a minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” that are applicable on a continent-wide basis and those competencies were identified by administering a continent-wide job and task analysis.</p>		
SERC Standards Review Group	No	Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator’s skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency through experience in operating the system.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
<p>Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Agree – however the NERC Certification exams do provide confirmation of a minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” that are applicable on a continent-wide basis and those competencies were identified by administering a continent-wide job and task analysis.</p>		
Independent Electricity System Operator	No	Rather than state FERC’s requirement as an obligation of the individual operator to demonstrate minimum competency in each topical area, the requirement should be stated as an obligation of NERC to ensure the certification exams reflect the stated topical areas. See our responses to Q3, Q4 and Q5.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Your comment places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Xcel Energy	No	Recommend development of a standard that applies to the ERO on what the certification process must demonstrate and contain. The areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.
<p>Response: The development of a standard applying to the ERO is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
NERC PGC	No	Section 600 of the Rules of Procedure of the North American Electric Reliability Corporation states “the System Operator Certification Program provides the mechanism to ensure system operators are provided the education and training necessary to obtain the essential knowledge and skills and are therefore qualified to operate the bulk electric system. NERC, as the ERO, will ensure skilled, trained, and qualified system operators through the System Operator Certification Program. NERC shall develop and maintain a personnel certification program to evaluate individuals and to issue credentials to individuals who demonstrate the required level of competence.” ⁴ . The personnel certification program governing body shall have control over

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
		<p>the matters related to the personnel certification and recertification programs listed below, without being subject to approval by any other body.4.1 Policies and procedures, including eligibility requirements and application processing.4.2 Requirements for personnel certification, maintaining certification, and recertification.4.3 Examination content, development, and administration.4.4 Examination cut score.This standard should only ensure that reliability related tasks are being performed by NERC Certified System Operators.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT thanks you for your comment. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
Georgia System Operations Corporation	No	<p>The areas of competency are not needed in the standard since they are already in the NERC certification program. The standard should refer to the System Operator Certification program and not list the areas of competency.The NERC System Operator Certification Program states that it “awards certification credentials to those individuals who demonstrate that they have attained sufficient knowledge relating to NERC reliability standards and the basic principles of bulk power system operations by passing one of four specialty examinations.”The System Operator Certification mission is to “ensure that employers have a workforce of system operators that meet minimum qualifications.”</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
IPCo	No	<p>the Competecies should not be part of this standard.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
Consumers Energy Company	No	<p>The functional entities have no responsibility and no recourse to the design of the certification process. They cannot determine what is demonstrated by an operator passing a certification examination. They cannot be</p>

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Organization	Yes or No	Question 11 Comment
		held responsible for anything they cannot control.
<p>Response: The governance of the certification program is done by the PCGC which is composed of representatives from the functional entities. The actual exam questions are written by the Exam Working Group which is also composed of representatives from the functional entities. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Long Island Power Authority	No	<p>The term "minimum competencies" will be difficult to demonstrate compliance to. The term is very open to conflicting interpretation.</p> <p>A possible alternative is reference to the System Operator Certification Program manual. The demonstration and measurement of System Operator competencies is better suited to the Standard PER-005, and is another reason why the requirement should be limited to the possession of a current and valid NERC certificate.</p>
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>		
Alberta Electric System Operator	No	There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method</p>		

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Organization	Yes or No	Question 11 Comment
<p>other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
ERCOT ISO	No	<p>There is an established process in place which defines the minimum competencies for NERC Certification. This meets the Commission’s directive in FERC Order 693.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive.</p>		
NIPSCO	No	<p>These specific competencies should be covered in the new PER-005 Standard and not in the certification standard.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
BCTC	No	<p>This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”. There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Pacific Gas and Electric	No	<p>This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System</p>

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Organization	Yes or No	Question 11 Comment
Company		Operators.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”. There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
WECC Operations Training Subcommittee	No	This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”. There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
E.ON U.S. LLC	No	Topical areas required to demonstrate minimum competencies should be (and are) addressed in the NERC certification process - they should not part of a requirement in a Reliability Standard
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
American Transmission Company	No	We believe that the inclusion of the minimum competency list is unnecessary because the NERC System Operator Certificate program already addresses these competencies. The SDT should work with the NERC System Operator Certification group to develop a summary of the NERC Certification program in order to address FERC's concern.

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Organization	Yes or No	Question 11 Comment
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
<p>Midwest ISO Stakeholder Standards Collaborators</p>	<p>No</p>	<p>While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.</p>
<p>Response: With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p> <p>The SDT thanks you for your comment. However, your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive. The proposed standard requires that certain System Operators pass certain NERC exams. These NERC Certification exams do test for the existence of a minimum set of competencies. A System Operator who passes the applicable test has demonstrated that he or she has that minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p>		
<p>Transmission and Reliability (TRO), TVA</p>	<p>No</p>	<p>While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure.</p>
<p>Response: The SDT thanks you for your comment. However, your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC</p>		

Organization	Yes or No	Question 11 Comment
<p>certificate number with expiration date”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>		
<p>Hydro-Québec TransEnergie (HQT)</p>	<p>No</p>	<p>With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should “drill down” to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved.</p> <p>Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>The SDT also believes that identifying what constitutes an approved course for continuing education is outside of the industry approved SAR for this project. The SDT feels that this standard deals with the topic of who needs to be certified and what certification is needed for a particular position.</p> <p>The SDT believes that these areas of competency existed prior to 2007 within the certification program.</p> <p>With regard to your comment concerning a requirement to participate in continuing education or a training program the SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		

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Organization	Yes or No	Question 11 Comment
Northeast Power Coordinating Council	No	<p>With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should “drill down” to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved. Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>The SDT also believes that identifying what constitutes an approved course for continuing education is outside of the industry approved SAR for this project. The SDT feels that this standard deals with the topic of who needs to be certified and what certification is needed for a particular position.</p> <p>The SDT believes that these areas of competency existed prior to 2007 within the certification program.</p> <p>With regard to your comment concerning a requirement to participate in continuing education or a training program the SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
City of Tallahassee (TAL)	Yes	<p>Although this could have been better addressed through the NERC System Operator Certification Program and that process. The performance standard (PER-003) could have remained the Version 0, and only required that they be certified at the appropriate level.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
<p>competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p>		
<p>ISO RTO Council Standards Review Committee</p>	<p>Yes</p>	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (e.g., using differing tools and systems), depending on the organizational structures.</p> <p>It is our understanding that the initial exam requirement is intended to assess conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p>		
<p>ISO New England Inc.</p>	<p>Yes</p>	<p>We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (i.e. using differing tools and systems), depending on the organizational structures. It is our understanding that the initial exam requirement is intended to conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
		take the same approach.
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p>		
Bonneville Power Administration	Yes	
Duke Energy	Yes	
Manitoba Hydro	Yes	
PacifiCorp	Yes	
Platte River Power Authority Operations Group	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
US Bureau of Reclamation	Yes	

12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section.

Summary Consideration: A couple of the commenters felt there was a conflict in the use of the term System Operator. The SDT explained that they used the term “System Operator” because it was a defined term which helped to narrow who should be included. The SDT narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators and Generator Operators are included in the definition of “System Operator”.

A couple of commenters also stated that they felt there was a conflict between FERC Order 693 and the NERC Rules of Procedure Section 600 as well as the Personnel Certification Governance Committee (PCGC) Charter. The SDT does not have sufficient information to address this suggested conflict. The standard does not mandate any changes to the PCGC Charter or to the process used to develop or administer the certification exams.

Organization	Question 12 Comment
Platte River Power Authority Operations Group	We believe the standard as written ...shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed could infer that registered entities be in compliance with PER-005-1 when in reality the intent of the Standard is to assure registered entities have staffed real-time operating positions with System Operators that have an appropriate, valid NERC certificate.
Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.	
NERC PCGC	Yes. There is a conflict between FERC Order 693 and the ROP, section 600, which were approved post FERC Order 693. See comment for #11
Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. With regards to your comment concerning a conflict between FERC Order 693 and the Rules of Procedure Section 600, this is beyond the scope of this project.	
Entergy Services	A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 12 Comment
	System Operator certification and should therefore be removed from the System Operator definition in the Glossary.
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the entities registered as Reliability Coordinators, Transmission Operators, and Balancing Authorities since this standard is not applicable to entities registered as Generator Operators, and thus is not applicable to those System Operators who work solely for Generator Operators.</p>	
SERC Standards Review Group	A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require System Operator certification and should therefore be removed from the System Operator definition in the Glossary.
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the entities registered as Reliability Coordinators, Transmission Operators, and Balancing Authorities since this standard is not applicable to entities registered as Generator Operators , and thus is not applicable to those System Operators who work solely for Generator Operators.</p>	
IPCo	conflicts with PCGC charter
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”.</p>	
Long Island Power Authority	LIPA believes the proposed Standard "shall staff its real-time operating positions with System operators who have demonstrated minimum competency in the areas listed" could infer that Registered Entities be in compliance with PER-005-1 prior to the effective date of PER-005-1, when the intent of PER-003 is to assure that the Registered Entity has staffed ots real-time operating positions with System Operators possessing a valid Nerc Certificate.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>	
American Electric Power (AEP)	No known regulatory conflicts.
South Carolina Electric and Gas	Not aware of any.

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Organization	Question 12 Comment
Independent Electricity System Operator	We are not aware of any conflicts.
Duke Energy	None
ISO RTO Council Standards Review Committee	None
NIPSCO	None
PacifiCorp	None
Northeast Power Coordinating Council	None.
Transmission and Reliability (TRO), TVA	None.
Consumers Energy Company	No
Hydro-Québec TransEnergie (HQT)	No
ISO New England Inc.	No.
NERC Standards Review Subcommittee	N/A
Georgia System Operations Corporation	N/C

13. In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Summary Consideration: Some of the commenters stated that there should be an exception within the proposed standard to allow for trainees. The SDT explained that the individual responsible for the operation of the BES must be NERC certified and that this proposed standard was not allowing for exceptions.

Some of the commenters re-stated their belief that minimum competencies should not be a part of this standard. The SDT is responding to FERC Order 693 which contains a directive to include minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

Some additional commenters re-stated their question as to how minimum competency would be verified. The requirements were modified to clarify that competence is demonstrated “by” obtaining and maintaining a NERC Certificate.

One commenter questioned whether the ISO/RE could impose stricter standards than those imposed by NERC. The ISO/RE had the authority to develop and implement qualification and/or certification processes in addition to the NERC certification program. However, the Compliance Enforcement Authority is only responsible for enforcing compliance with standards that have been developed and approved either with NERC’s Standards Development Procedure or through a NERC-approved Regional Standards Development Procedure.

Organization	Question 13 Comment
Georgia System Operations Corporation	A section on training of operators that was in the old standard still should be addressed in the updated standard. If not, an interpretation of this standard would not allow a trainee, working on achieving his NERC certification, to gain operating experience working under the direct supervision of a certified system operator.
<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>	
ERCOT ISO	ERCOT ISO believes that minimum competencies do not belong in this standard. The terms “competent” and “competencies” are not interchangeable. Competent is a measure of a person’s ability to perform. Competencies are, generally speaking, the knowledge and skills a person must have in order to develop or achieve competence. Some

Organization	Question 13 Comment
	<p>competencies (a minimum body of knowledge) can be demonstrated by the current NERC certification process. Other competencies that are not demonstrated by the current NERC certification process are defined and evaluated by the individual Registered Entities. When combined with the knowledge competencies, the Registered Entity then verifies that the individual is competent to perform its assigned tasks. Each ISO or RE should be allowed to establish qualification criteria for operating within its region. Furthermore, there is more flexibility within the existing process by going through the Personnel Certification Governance Committee for changing minimum competencies than there would be to change minimum competencies if they were added into the NERC standards.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT believes that the ISO/RE has the authority to develop and implement qualification and/or certification processes in addition to the NERC certification program.</p> <p>The proposed standard only identifies the topical areas where competence must be demonstrated through certification – the standard does not identify the detailed competencies.</p>	
<p>NERC PCGC</p>	<p>It is suggested that we leave the competencies with PER-005 and leave them out of this standard.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>	
<p>Long Island Power Authority</p>	<p>LIPA suggests consideration of a requirement to require each RC/TOP/BA to have at least one position staffed with a System Operator possessing a valid NERC Certificate, 24 hours a day, seven days a week, responsible for the control of the bES munder R1/R2/R3. This requirement will eliminate the ambiguity of the definition of real-time operating positions responsiblefor the control of the BES.</p> <p>2.Consideration for a requirement that clearly states the requirement of possessing a valid NERC certificate before a System Operator can fill a real-time operating position responsible for the control of the BES.</p> <p>It is our opinion that the phrase "demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate" can be interpreted as not requiring the possession of a valid NERC Certificate prior to staffing a real-time operating position. For example, minimum competency (which is undefined) can be demonstrated by a test given by the Registered Entity to a System Operator prior to the System Operator completing the NERC Certification process. If the pupose of this Standard is to demonstrate competency via the NERC certification process then the requirements should clearly state so.</p>

Organization	Question 13 Comment
	<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>
<p>Independent Electricity System Operator</p>	<p>PER-003-0 (Version 0) M1.1 provided for or stated that it was permissible for an operator-in-training without proper NERC certification to perform reliability related tasks while under direct and continuous supervision. PER-003-1 is now silent in this regard. Does this mean that it is still permissible for O-I-T’s or other uncertified operations staff to perform these tasks under direct and continuous supervision and that it was deemed unnecessary to specifically mention this fact? To avoid compliance uncertainty in the future, we recommend reinstating the wording of PER-003-0 M1.1 or equivalent.</p>
	<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>NIPSCO</p>	<p>R1.2 from the existing PER-003-0 “Positions directly responsible for complying with NERC standards” was removed; the word “both” in R1 tied this to the real time operations. This is a key change to the standard that I think should be questioned and noted. In determining who should be NERC certified some entities can presently exclude people who are not familiar at all with complying to NERC Standards however they may be operating the BES.</p> <p>Another issue that came up during a proposed interpretation discussion a few years ago was that if a real time operator can act “independently”, like shed load without asking a supervisor, then that person should be certified. This excluded switchmen and local dispatch center personnel who would ask for direction from a certified operator before acting on the BES. I think both these issues should be addressed or at least brought to the attention of people commenting.</p>
	<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity. By including the defined term, “System Operator” in the requirement, the SDT has already provided clarity with respect to which personnel need a</p>

Organization	Question 13 Comment
	<p>NERC certificate. The definition of System Operator is: An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, and Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time. Thus, by definition, a switch person is not a System Operator - and a person working an operating position in a control room for an entity that is not registered as a Balancing Authority, Transmission Operator, Generator Operator, or Reliability Coordinator is not required to have a NERC certificate. Note that through other exclusions in the applicability section of the standard, personnel working in control rooms for an entity registered solely as a Generator Operator are not required to obtain a NERC certification.</p>
Duke Energy	<p>The "Reliability Operator" certificate is for Reliability Coordination. The name of the certificate should be made consistent with the task.</p>
<p>Response: The SDT thanks you for your comment. However, your comment suggests something that is outside the scope of the industry approved SAR.</p>	
Xcel Energy	<p>The current version of PER-003 addresses the allowability of non-NERC certified individuals (trainees) performing tasks of an RC, BA, or TOP under direct supervision of a certified individual and we believe there should be a requirement that explicitly allows that to occur. The current version of PER-003 addresses the allowable time that non-NERC certified personnel may staff positions when transitioning to an alternate control center. We believe this should be addressed in the requirements and also be consistent with the allowable transition time specified in EOP-008.</p>
<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>	
IPCo	<p>The PCGC issues the credentials for the Operator Certification, How Does the ERO audit the PCGC for NERC compliance for issuing the certificates?</p>
<p>Response: The SDT thanks you for your comment. However, your comment suggests something that is outside the scope of the industry approved SAR.</p>	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
FirstEnergy	The phrase "real-time" used in the standard should be capitalized (Real-time) since it is a NERC Glossary term.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>	
Pacific Gas and Electric Company	The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard.
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p>	
WECC Operations Training Subcommittee	The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard.
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>	
American Electric Power (AEP)	There are potential gaps and conflicting information in the NERC CE Program and System Operator Certification Program Manual with respect the demonstrated competencies and Appendix A for recognized training topics. As explained in Section 600 - Personnel Certification of the Rules of Procedure of the NERC, these gaps and conflicting information will need to be addressed by the PCGC. The PCGC, in coordination with the NERC Personnel Subcommittee, should continue to manage the demonstrated competency areas and measuring thereof going forward.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
	PER-005-1 should be modified to identify the company-specific reliability-related tasks of the identified competency areas to be addressed with a systematic training approach.
<p>Response: The SDT thanks you for your comment. However, your comment suggests something that is outside the scope of the industry approved SAR. The SDT feels that any issues you have with the PS PCGC should be taken up with them.</p>	
American Transmission Company	This SDT should look at the new PER-005 standards as an additional source to show that the minimum competency list is being addressed.
<p>Response: The SDT is not sure as to the point you are trying to make. The SDT agrees that PER-005 would be helpful with regards to training.</p>	
ISO New England Inc.	We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion. We believe the Standard need to be clarified to make it more clear for the industry.
<p>Response: The SDT has modified the purpose statement which now reads “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”.</p> <p>The SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>	
ISO RTO Council Standards Review Committee	We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion. We believe the Standard needs to be clarified to make it more clear for the industry.
<p>Response: The SDT has modified the purpose statement which now reads “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification</p>	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
	<p>Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”.</p> <p>The SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>
<p>Alberta Electric System Operator</p>	<p>We do not feel that competencies belong in this standard. Competencies are addressed in PER005 by requiring training programs to be developed based on the entity’s BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability standards, the task list will identify relevant competencies. From PER005 - “Purpose: To ensure that System Operators performing real-time, reliability-related tasks on the North American Bulk Electric System (BES) are competent to perform those reliability-related tasks. The competency of System Operators is critical to the reliability of the North American Bulk Electric System.”</p>
	<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>
<p>NERC Standards Review Subcommittee</p>	<p>N/A</p>
<p>Entergy Services</p>	<p>None not already stated above.</p>
<p>SERC Standards Review Group</p>	<p>None not already stated above.</p>
<p>Consumers Energy Company</p>	<p>None</p>
<p>PacifiCorp</p>	<p>None</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
South Carolina Electric and Gas	None
Transmission and Reliability (TRO), TVA	None.

Consideration of Comments on Second Draft of PER-003-1 - Operating Personnel Credentials — Project 2007-04

The Operating Personnel Credentials Standard Drafting Team thanks all commenters who submitted comments on the draft Operating Personnel Credentials standard (PER-003-1). The standard was posted for a 45-day public comment period from August 10, 2010 through September 24, 2010. The stakeholders were asked to provide feedback on the standards through a special Electronic Comment Form. There were 33 sets of comments, including comments from more than 87 different people from approximately 32 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received the drafting team made the following changes to the proposed Standard:

- Modified the footnote to provide additional clarity.
- Modified Measure M1.3 to provide additional clarity.
- Corrected the second footnote to use the same wording as the first footnote.

There were several minority issues that the team was unable to resolve, including the following:

- Several stakeholders objected to the standards reference to "competencies." The team is required to address the FERC directive from Order 693 that states that the standard must identify the minimum competencies operating personnel must demonstrate to be certified. The team met with FERC staff and confirmed that the directive does intend for competencies to be identified in the standard.
- Several stakeholders objected to the use of the term "System Operator" because the NERC Glossary definition contains the 'Generator Operator' within the parenthetical. The team explained that while the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator.
- Several stakeholders wanted the Measure to be re-worded to only include the System Operators name and NERC certificate number as proof of compliance. The team explained that the Measure as currently written already allowed for either "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date". The team further explained that this was done to allow the entity being audited to determine the method that best suits its needs.
- Several stakeholders want the VSLs to be graduated and the team did not change the VSLs. The VSLs proposed meet both NERC and FERC VSL Guidelines.
- A few stake holders wanted the ERO to be required to create and maintain a certification program that meets the minimum competencies identified within the standard. The team explained that NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. They further explained that the program, by design, was autonomous and that this program was already included in the NERC Rules of Procedure. The team further stated that they felt placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received can be viewed in their original format at:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

1. The SDT has modified the Purpose statement of the draft standard. The Purpose statement now reads "To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System".	10
2. Although the industry as a whole did not request additional time for the implementation of this standard, the SDT responded to those entities that requested additional time. The SDT determined that there may be instances where existing certificate holders may need to obtain a different certificate, and, consequently, modified the effective date of the draft standard to be twelve months after regulatory approval/or BOT approval where there is no regulatory approval required.	13
3. The SDT has modified the body of all three Requirements to provide additional clarity as to who is to be certified. The body of the Requirement(s) now reads: "Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".	17
4. The SDT has modified the Measure to better align with the Requirement(s). The Measure now reads "Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3): M1.1 A list of Real-time operating positions. M1.2 A list of System Operators assigned to its Real-time operating positions. M1.3 A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date. M1.4 Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.	29
5. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.	30

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Guy Zito	Northeast Power Coordinating Council	10									
	Additional Member	Additional Organization	Region	Segment Selection									
1.	Alan Adamson	NY State Reliability Council	NPCC	10									
2.	Gregory Campoli	New York ISO	NPCC	2									
3.	Kurtis Chong	Independent Electricity System Operator	NPCC	2									
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1									
5.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1									

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual	Commenter	Organization	Registered Ballot Body Segment																	
			1	2	3	4	5	6	7	8	9	10								
6.	Gerry Dunbar	NPCC	NPCC	10																
7.	Dean Ellis	Dynegy Generation	NPCC	5																
8.	Brian Evans-Mongeon	Utility Services	NPCC	8																
9.	Brian Gooder	Ontario Power Generation Incorp	NPCC	5																
10.	Kathleen Goodman	ISO New England	NPCC	2																
11.	Chantel Haswell	FPL Group	NPCC	5																
12.	David Kiguel	Hydro One Networks	NPCC	1																
13.	Michael Lombardi	Northeast Utilities	NPCC	1																
14.	Randy MacDonald	New Brunswick System Operator	NPCC	2																
15.	Bruce Metruck	NY Power Authority	NPCC	6																
16.	Lee Pedowicz	NPCC	NPCC	10																
17.	Robert Pellegrini	The United Illuminating Co	NPCC	1																
18.	Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1																
19.	Saurabh Saksena	National Grid	NPCC	1																
20.	Michael Schiavone	National Grid	NPCC	1																
21.	Peter Yost	Consolidated Edison	NPCC	3																
22.	Mike Garton	Dominion Resources Services	NPCC	5																

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
2.	Group	Deborah Schaneman	Platte River Power Authority	1, 3, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Jeff Landis	Platte River Power Authority	WECC	1,3,6									
3.	Group	Denise Koehn	Bonneville Power Administration	1, 3, 5, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Bernie O'Connell	BPA, Transmission Dispatch	WECC	1									
4.	Group	Mike Garton	Electric Market Policy	1, 3, 5, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Michael Gildea	Dominion Resources Services	SERC	3									
2.	Louis Slade	Dominion Resources Services	RFC	6									
3.	John Loftis	Dominion Virginia Power	SERC	1									
5.	Group	Sam Ciccone	FirstEnergy	1, 3, 4, 5, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Jim Eckels	FE	RFC	1									
2.	Steve Megay	FE	RFC	1									

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
3. Doug Hohlbaugh		FE	RFC	1									
6.	Group	Carol Gerou	MRO's NERC Standards Review Subcommittee	10									
	Additional Member	Additional Organization	Region	Segment Selection									
1.	Mahmood Safi	Mahmood Safi	MRO	1,3,5,6									
2.	Chuck Lawrence	American Transmission Co.	MRO	1									
3.	Tom Webb	WPS Corporation	MRO	3,4,5,6									
4.	John Marshall	Midwest ISO	MRO	2									
5.	Jodi Jensen	Western Area Power Admin.	MRO	1,6									
6.	Ken Goldsmith	Alliant Energy	MRO	4									
7.	Dave Rudolf	Basin Electric Power Cooperative	MRO	1,3,5,6									
8.	Eric Ruskamp	Lincoln Electric System	MRO	1,3,5,6									
9.	Joseph Knight	Great River Energy	MRO	1,3,5,6									
10.	Joe DePoorter	Madison Gas & Electric	MRO	3,4,5,6									
11.	Scott Nickels	Rochester Public Utilities	MRO	4									
12.	Terry Harbour	MidAmerican Energy	MRO	1,3,5,6									
7.	Group	Jason Marshall	Midwest ISO Standards Collaborators	2									
	Additional Member	Additional Organization	Region	Segment									

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization		Registered Ballot Body Segment									
					1	2	3	4	5	6	7	8	9	10
				Selection										
1.	Joe Knight	Great River Energy	MRO	1,3,5,6										
2.	Jim Cyrulewski	JDRJC Associates	RFC	8										
8.	Group	Margaret Stambach	SERC OC-SOS Standards Review Group		1, 3, 5, 9, 10									
	Additional Member	Additional Organization	Region	Segment Selection										
1.	Gerry Beckerle	Ameren	SERC	1,3										
2.	Robert Thomasson	Big Rivers Electric	SERC	1,2,5,9										
3.	Angela Park	Dominion	SERC	1,3										
4.	Sam Holeman	Duke Energy	SERC	1,3,5										
5.	Greg Rowland	Duke Energy	SERC	1,3,5										
6.	Andy Burch	Electric Energy	SERC	1,5										
7.	Larry Rodriquez	Entegra Power	SERC	5										
8.	Mark Brown	Entergy Transmission	SERC	1,3										
9.	Jim Case	Entergy Transmission	SERC	1,3										
10.	Wayne Mitchell	Entergy Transmission	SERC	1,3										
11.	Melinda Montgomery	Entergy Transmission	SERC	1,3										
12.	Barry Hardy	OMU	SERC	1,3,5										
13.	Bill Thigpen	PowerSouth	SERC	1,3,5										
14.	John Lemire	Progress Energy	SERC	1,3,5										
15.	Gene Delk	SCE&G	SERC	1,3,5										

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment																
				1	2	3	4	5	6	7	8	9	10							
16.	Steve Hebert	SCE&G	SERC 1,3,5																	
17.	John Rembold	SIPC	SERC 1,3,5																	
18.	Randy Castello	Sothern Company	SERC 1,3,5																	
19.	Rocky Williamson	Southern Company	SERC 1,3,5																	
20.	Sam Austin	TVA	SERC 1,3,5,9																	
21.	Edd Forsythe	TVA	SERC 1,3,5,9																	
22.	Joe Wise	TVA	SERC 1,3,5,9																	
9.	Individual	Silvia Parada Mitchell	NextEra Energy	x		x		x	x											
10.	Individual	Andy Tillery	Southern Company	x		x														
11.	Individual	Brad Pederson	Portland General Electric	x																
12.	Individual	Dan Rochester	Independent Electricity System Operator		x															
13.	Individual	Michael Lombardi	Northeast Utilities	x		x		x												
14.	Individual	Joylyn Faust	Consumers Energy			x	x	x												
15.	Individual	Edward c. Stein	Self																x	
16.	Individual	Joe O'Brien	NIPSCO	x		x		x	x											
17.	Individual	John Bee	Exelon	x		x		x												
18.	Individual	Jonathan Appelbaum	The United Illuminating Company	x																

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
19.	Individual	Kasia Mihalchuk	Manitoba Hydro	x		x		x	x				
20.	Individual	Greg Rowland	Duke Energy	x		x		x	x				
21.	Individual	RoLynda Shumpert	South Carolina Electric and Gas	x		x		x	x				
22.	Individual	Matt Brewer	San Diego Gas and Electric Co.	x		x		x	x				
23.	Individual	Jon Kapitz	Xcel Energy	x		x		x					
24.	Individual	Thad Ness	American Electric Power (AEP)	x		x		x	x				
25.	Individual	Ed Davis	Entergy Services	x		x		x	x				
26.	Individual	Eric Senkowicz	FRCC Manager of Operations										x
27.	Individual	Matt Stryjewski	BGE	x									
28.	Individual	Laura Zotter	ERCOT ISO		x								
29.	Individual	Tony Kroskey	Brazos Electric Power Cooperative, Inc.	x									
30.	Individual	Martin Bauer	US Bureau of Reclamation					x					
31.	Individual	Steve Toth	Covanta Energy					x					
32.	Individual	Darryl Curtis	Oncor Electric Delivery	x									
33.	Individual	Val Lehner	ATC	x									

1. The SDT has modified the Purpose statement of the draft standard. The Purpose statement now reads “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System”.

Do you agree that the modified Purpose statement provides greater clarity as to who is affected and how certification is to be accomplished? If not, please explain in the comment area.

Summary Consideration: One commenter felt that the NERC System Operator Certification Program needed to be defined. The SDT explained that the Program was already defined in both the Rules and Procedures Section 600 and Appendix 6. Another commenter was in agreement with the Purpose Statement but felt that it was still a little vague as to who needed to be certified. The SDT explained that the SDT felt it was very clearly stated and that the majority of the industry supported their belief.

Organization	Yes or No	Question 1 Comment
San Diego Gas and Electric Co.	No	The term “NERC System Operator Certification Program” needs to be defined.
<p>Response: The NERC System Operator Certification Program is a defined program in both the Rules of Procedure Section 600 & System Operator Certification Program Manual, Appendix 6.</p>		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>		
NIPSCO	Yes	Yes & No, it’s still vague who must be certified and in the SAR it was suggested that this issue be addressed as it relates to the 2006 unapproved interpretation. However, from a compliance point of view we’re not sure if this is a bad thing.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. However, the majority of the industry supported the SDT’s position on this subject.</p>		

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
Electric Market Policy	Yes	
FirstEnergy	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
Midwest ISO Standards Collaborators	Yes	
SERC OC-SOS Standards Review Group	Yes	
NextEra Energy	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	
Consumers Energy	Yes	
Edward c. Stein	Yes	
Exelon	Yes	

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 1 Comment
The United Illuminating Company	Yes	
Manitoba Hydro	Yes	
Duke Energy	Yes	
South Carolina Electric and Gas	Yes	
Xcel Energy	Yes	
American Electric Power (AEP)	Yes	
Entergy Services	Yes	
FRCC Manager of Operations	Yes	
ERCOT ISO	Yes	
Brazos Electric Power Cooperative, Inc.	Yes	
US Bureau of Reclamation	Yes	
Covanta Energy	Yes	
Oncor Electric Delivery	Yes	
ATC	Yes	

2. Although the industry as a whole did not request additional time for the implementation of this standard, the SDT responded to those entities that requested additional time. The SDT determined that there may be instances where existing certificate holders may need to obtain a different certificate, and, consequently, modified the effective date of the draft standard to be twelve months after regulatory approval/or BOT approval where there is no regulatory approval required.

Do you agree that this additional time is sufficient for all entities to comply with the standard? If not, please explain in the comment area.

Summary Consideration: One commenter stated that they felt implementation period should be 18 months instead of 12 months. The SDT explained that it had extended the initial implementation period to twelve months based on comments received during the first comment period. The SDT further explained that the majority of the industry supported the twelve month implementation period.

Organization	Yes or No	Question 2 Comment
Brazos Electric Power Cooperative, Inc.	No	Should allow up to 18 months.
Response: As a result of the first posting, the SDT modified the effective date to twelve months in the event that some currently certified personnel may not hold the proper NERC certificate as defined by this standard which the majority of the industry supported during this comment period.		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
Response: The SDT thanks you for your affirmative response and clarifying comment.		
Consumers Energy	Yes	12 months is adequate, but not less than 12 months.
Response: The SDT thanks you for your affirmative response and clarifying comment.		
NIPSCO	Yes	Time seems adequate
Response: The SDT thanks you for your affirmative response and clarifying comment.		

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 2 Comment
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
Electric Market Policy	Yes	
FirstEnergy	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
Midwest ISO Standards Collaborators	Yes	
SERC OC-SOS Standards Review Group	Yes	
NextEra Energy	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	
Edward c. Stein	Yes	
Exelon	Yes	
The United Illuminating Company	Yes	

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 2 Comment
Manitoba Hydro	Yes	
Duke Energy	Yes	
South Carolina Electric and Gas	Yes	
San Diego Gas and Electric Co.	Yes	
American Electric Power (AEP)	Yes	
Entergy Services	Yes	
FRCC Manager of Operations	Yes	
ERCOT ISO	Yes	
Covanta Energy	Yes	
Oncor Electric Delivery	Yes	
ATC	Yes	
Xcel Energy		None

3. The SDT has modified the body of all three Requirements to provide additional clarity as to who is to be certified. The body of the Requirement(s) now reads:

“Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.

Do you agree that this modification clearly states who is to be certified and clarifies that the obtaining and maintaining the certificate is how competence is demonstrated? If not, please explain in the comment area.

Summary Consideration: The majority of the commenters felt that minimum competencies should not be included in the standard and that the use of the term “System Operator” either should not be used in the standard or should be re-defined to exclude Generator Operators in the NERC Glossary definition. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represent the most efficient and effective method for meeting this FERC directive. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program will use both now and in the future. In addition, recertification through training will also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.

Regarding the comment concerning the use of the term System Operator, while the definition of the term ‘System Operator’ in the NERC Glossary is included in the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.

A few of the commenters were concerned that the minimum competencies were not directly expressed in the measures and questioned the formatting used in the Requirements. The “Areas of Competency” are implicitly included in Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.

Concerning the question on the formatting used in the Requirements, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.

A couple of the commenters wanted to change the phrase “performing reliability-related tasks” to “meeting its functional obligations”. The SDT explained that the phrase “meeting its functional obligations” as described in the functional model, could

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include tasks that are not reliability related and also tasks that are not required to be performed by System Operators and therefore, did not revise the standard to reflect this modification.

A couple of other commenters questioned if the footnote carried the same weight as if it were included as part of the requirements (i.e. could an entity still be found non-compliant for having a non-certified trainee learning or observing?). The SDT explained that it was their determination, based on the Standards Committee’s guidance, that the footnote would carry the same weight as the Requirement to which it is attached. The SDT further explained that the answer to their question “could an entity still be found non-compliant for having a non-certified trainee learning or observing?” is no, they would not be found non-compliant. The footnote was modified to provide further clarity and the footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks”.

Organization	Yes or No	Question 3 Comment
Electric Market Policy	No	<p>Dominion recommends changes to the above sentence to read as follows; “System Operators who have obtained and maintain one of the following valid NERC certificates:” Dominion suggests the phrase ‘in the areas listed’ implies something that can be construed by an auditor as something measurable. R1. and R2. both contain ‘Areas of Competency’ which an auditor could interpret as sub requirements. They are not explicitly represented in the measures section as it currently exists. The ‘Areas of Competency’ are included in the NERC SO examination. Inserting “obtained and maintain” simplifies the standard. ‘Obtaining and maintaining’ are used in the measures section (M1.).</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p>		
MRO's NERC Standards Review Subcommittee	No	<p>The NSRS recommends that the SDT changes “performing reliability-related tasks” to “meeting its functional obligations” to reflect recent changes made to other approved standards.</p> <p>In addition, the definition of “System Operator” includes “Generator Operator”, however generator operators</p>

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Organization	Yes or No	Question 3 Comment
		<p>are not covered in any specific requirement in the standard. We believe the term “Generator Operator” should be removed from the definition of “System Operator”, or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. The NSRS would also like to point out the Generator Operator is the Registered Entity that meet the obligations set in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.</p>
<p>Response: The wording, “meeting its functional obligations” as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
Midwest ISO Standards Collaborators	No	<p>To be consistent with other recently approved standards, we suggest changing “performing reliability-related tasks” to “meeting its functional obligations”. This is the language used in the recently approved R1 EOP-008-1 and then ties the requirement back to the functional model which is task specific.</p> <p>We do also note that the term System Operator includes generator operators in the definition. However, generator operators are not covered in the standard in a specific requirement. This could cause some confusion on exactly to whom that standard applies.</p>
<p>Response: The wording, “meeting its functional obligations” as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
SERC OC-SOS Standards Review Group	No	<p>Our group continues to believe that the term “competency” should not be used to describe an operator who has simply become certified through the NERC System Operator Certification Program. The certification process only assures that an operator is “capable” of perform reliability-related tasks. To deem the operator “competent” in performing such tasks, one would have to observe performance over a long period of time and under unexpected operating conditions. Changing the word “competency” to “capability” would make the statement above accurate.</p> <p>We also see the listing of specific technical areas under each requirement as problematic and prescriptive. By listing the areas, a process is set up that will potentially be very hard to manage. If a topic needs to be added or subtracted, the exam would be changed accordingly; however, then the standard would have to be changed, including creation of a SAR followed by industry comment, balloting periods, and approvals. The</p>

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Organization	Yes or No	Question 3 Comment
		<p>areas of capability for each function are all included in the certification exam requirements, and need not be listed in this draft standard. Furthermore, the fact that each technical area is numbered indicates that each one is a sub-requirement of the standard. Yet, there are no measures associated with the technical areas. So how can it be determined that an entity is compliant or non-compliant with this part of the standard? Our group suggests that the standard drafting team consider making the following changes to each of the three requirements:-- In the requirement statement, replace the word “competency” with “capability” and strike the phrase “in the areas listed”.-- Strike the section “Areas of Competency”. If these technical areas must be listed, change the heading to “Areas of Capability”, use bullets instead of numbers, and move to an appendix of this standard.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p>		
Southern Company	No	<p>We believe the term “competency” should be changed to “capability” to more accurately reflect the purpose of the statement. The certification process assures that an operator is “capable” of performing reliability related tasks, not that the operator is “competent” in performing those tasks. In order to determine “competency”, the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term “competency” should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term “competency” to “capability” in each of the three requirements</p> <p>We believe that listing the specific technical “Areas of Competency” under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the “Areas of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous</p>

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Organization	Yes or No	Question 3 Comment
		comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p>		
NextEra Energy	No	<p>Suggest the following edits to clarify further and be consistent with standards formatting:</p> <p>R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R1.1 below, by obtaining and maintaining a valid NERC Reliability Operator certificate (1[Risk Factor: High][Time Horizon: Real-time Operations]R1.1. Areas of competency (based on exam content outline) R1.1.1. Resource and demand balancing R1.1.2. Transmission operations R1.1.3. Emergency preparedness and operations R1.1.4. System operations R1.1.5. Protection and control R1.1.6. Voltage and reactive R1.1.7. Interchange scheduling and coordination R1.1.8. Interconnection reliability operations and coordination</p> <p>R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R2.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R2.2 below. (1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R2.1. Areas of competency (based on exam content outline) R2.1.1. Transmission operations R2.1.2. Emergency preparedness and operations R2.1.3. System operations R2.1.4. Protection and control R2.1.5. Voltage and reactive R2.2. Certificates R2.2.1 Reliability Operator R2.2.2 Balancing, Interchange and Transmission Operator R2.2.3 Transmission Operator</p> <p>R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R3.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R3.2 below.(1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R3.1. Areas of competency (based on exam content outline) R3.1.1. Resources and demand balancing R3.1.2. Emergency preparedness and operations R3.1.3. System operations R3.1.4. Interchange scheduling and coordination R3.2. Certificates R3.2.1 Reliability</p>

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Organization	Yes or No	Question 3 Comment
		Operator R3.2.2 Balancing, Interchange and Transmission Operator R3.2.3 Balancing and Interchange Operator
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. NERC no longer places an “R” in front of sub-requirements; and sub-requirements are now called “Parts” of a requirement.</p>		
FRCC Manager of Operations	No	<p>Suggest the following edits to clarify further and be consistent with standards formatting and capitalization of defined terms:</p> <p>R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R1.1 below, by obtaining and maintaining a valid NERC Reliability Operator certificate (1[Risk Factor: High][Time Horizon: Real-time Operations]R1.1. Areas of Ccompetency (based on exam content outline) R1.1.1. Resource and demand balancing R1.1.2. Transmission operations R1.1.3. Emergency preparedness and operations R1.1.4. System operations R1.1.5. Protection and control R1.1.6. Voltage and reactive R1.1.7. Interchange scheduling and coordination R1.1.8. Interconnection reliability operations and coordination</p> <p>R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R2.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R2.2 below. (1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R2.1. Areas of competency (based on exam content outline) R2.1.1. Transmission operations R2.1.2. Emergency preparedness and operations R2.1.3. System operations R2.1.4. Protection and control R2.1.5. Voltage and reactive R2.2. Certificates R2.2.1 Reliability Operator R2.2.2 Balancing, Interchange and Transmission Operator R2.2.3 Transmission Operator</p> <p>R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R3.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R3.2 below.(1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R3.1. Areas of competency (based on exam content outline) R3.1.1. Resources and demand balancing R3.1.2. Emergency preparedness and operations R3.1.3. System operations R3.1.4. Interchange scheduling and coordination R3.2. Certificates R3.2.1 Reliability Operator R3.2.2 Balancing, Interchange and Transmission Operator R3.2.3 Balancing and Interchange Operator</p>
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. NERC no longer places an “R” in front of sub-requirements; and sub-requirements are now called “Parts” of a requirement.</p>		

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Organization	Yes or No	Question 3 Comment
Duke Energy	No	<ul style="list-style-type: none"> o R1, R2 and R3 - Strike the phrase “in the areas listed” from each requirement, and delete Sections 1.1, 2.1 and 3.1. We believe that listing the Areas of Competency in these three requirements is unnecessary to satisfy the Order 693 directive, since the requirements clearly link competency to NERC certification, and the Operator Certification program documents list the Areas of Competencies. Also if the Areas of Competency were ever modified, then you’d have to generate a revision to the standard. We believe that incorporating them by reference is a better way. o If the SDT decides that the Areas of Competency must be listed in the standard, then they should be bulleted and not numbered like sub-requirements, because you can’t graduate VSLs for the requirement based upon them. o R2 and R3 - The Certificates should be included in the text of the requirements and not numbered like sub-requirements. If the Areas of Competency are deleted, then you could leave the Certificates under the requirements, but if so they should be bulleted and not numbered like sub-requirements. <p>Also, delete the phrase “Part 2.2” from the R2 VSL and delete the phrase “Part 3.2” from the R3 VSL.</p> <ul style="list-style-type: none"> o R1 and R2 Footnote - we agree with this clarifying footnote, but question whether it carries the same weight as if it were included as part of the requirements (i.e. could an entity still be found non-compliant for having a non-certified trainee learning or observing?).

Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.

The SDT appreciates your comments concerning the formatting used in the proposed draft standard. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.

Regarding your concern about sub-requirements and graduated VSLs, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency”.

Concerning your comment about the authority of the footnote, it is the SDT’s determination, based on the Standards Committee’s guidance, that the footnote would carry the same weight as the Requirement to which it is attached. Therefore, the answer to your question “could an entity still be found non-compliant for having a non-certified trainee learning or observing?” is no, you would not be found non-compliant. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a Real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate

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Organization	Yes or No	Question 3 Comment
responsibility for the performance of the reliability-related tasks”.		
San Diego Gas and Electric Co.	No	<p>In R2, “Transmission Operator reliability-related tasks” need to be clearly defined and/or identified.</p> <p>Additionally, the following insertions between brackets need to be made to the text: “. . . in the areas listed <in R2.1> by obtaining and maintaining one of the following valid NERC certificates <listed in R2.2>.</p>
<p>Response: The SDT believes that reliability-related tasks can vary from entity to entity, so the entity itself must identify the tasks that it considers to be reliability-related.</p> <p>While the SDT appreciates your suggestion, the SDT does not believe that making the modification you are suggesting would provide any additional clarity.</p>		
American Electric Power (AEP)	No	<p>AEP recommends that footnote number 1 should be removed from this standard. If it is to remain, AEP recommends that the language should be as follows: The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks. If our recommendations are not accepted, then the term "operating position" needs to be formally defined or removed.</p>
<p>Response: Your requested change could lead to the assumption that the intent of the footnote was to allow for one certification to cover more than one person performing reliability-related tasks. For example, some could assume that the Supervisor in a multi-person control center would be the only one required to hold a valid NERC certification and that the others in the room work directly under that person’s supervision. This is not what this drafting team intended. Each operator filling a Real-time position that performs reliability-related tasks must hold a NERC certificate. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more desks are managed by a System Operator possessing the minimum competencies to respond to the situation reliably.</p> <p>The SDT feels making the suggested modification would reduce clarity. The SDT believes the standard clearly identifies operating position through the use of the phrase “Real-time operating positions performing (applicable entity) reliability-related tasks”. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks”.</p>		
Entergy Services	No	<p>The requirements and measures both focus on the activity of achieving and maintaining certification at the appropriate certification level. The list of competencies are not needed. The exam working group determines the content of the exam, and the entity doesn't have control over that content, to ensure that the list of competencies included in the requirements are all covered in the exam to the degree needed. The list of minimum competencies should be removed from the requirements.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes</p>		

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Organization	Yes or No	Question 3 Comment
		<p>that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>
ERCOT ISO	No	<p>ERCOT ISO disagrees with the use of the word competency and thinks the word knowledge applies more appropriately. The current NERC certification tests knowledge and the ability to cognitively apply that knowledge to problems. As another alternative, ERCOT ISO agrees with the SRC comments to remove the word "competency" and reword the requirement as follows:"Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have obtained and maintain one of the following valid NERC certificates:".</p>
		<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System. The NERC Certification exams do test a trainee's knowledge but they also require the trainee to apply that knowledge as part of the certification exam.</p>
Brazos Electric Power Cooperative, Inc.	No	<p>The requirements should simply state "Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have an appropriate and valid NERC certificate". The NERC certificate program by design establishes what the minimum competency is for each certificate type.</p>
		<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>
US Bureau of Reclamation	No	<p>The definition of System Operators "An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time." includes Generator Operators. The only reason the definition is not consistent with the standard and should be modified to exclude Generator Operator.</p>

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Organization	Yes or No	Question 3 Comment
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
Covanta Energy	No	<p>The definition of “System Operator” includes “Generator Operator”, however generator operators are not covered in any specific requirement or applicability section in this standard. The term “Generator Operator” should be removed from the definition of “System Operator”, or specifically noted as "not applicable" for this standard, to remove any ambiguity in the implementation of this standard. The Generator Operator is the registered entity that is expected to meet the obligations documented in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
ATC	No	<p>Although ATC appreciates the drafting team’s attempt to provide clarity we disagree with the inclusion of the list of minimum competencies (Requirement 1.1, 2.1 and 3.1). An entity may be able to demonstrate the minimum competencies requirements by showing that all System Control Operators (SCO) have a valid NERC certificate, but we have major concerns that if an auditor asked for additional evidence an entity would not be able to comply. The NERC Certification test is developed and administered by the ERO (i.e. NERC). As a Registered Entity we have no ability to ensure that the minimum competency requirements are covered by the NERC Certification Test. But since they are identified as Requirements we are required to demonstrate compliance. NERC Standard PER-005 addresses the issue of continual education using a systematic approach to training. It is ATC strong opinion that the minimum competencies requirements be deleted from the standard and that NERC demonstrates to FERC that they address these minimum competencies in the NERC Certification exam. ATC believes that this standard should only require that SCO (RC, TOP and BA) be NERC Certified.</p>
<p>Response: Regarding your concern about sub-requirements, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency”.</p> <p>FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone</p>		

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Organization	Yes or No	Question 3 Comment
<p>maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>		
Consumers Energy	Yes	There is no need for footnote (1). Of particular concern is the phrase “at that position”. This can be taken quite literally to a qualified operator who is required to sit behind the trainee. Consumers contends the Trainee is sufficiently supervised by a NERC Certified Operator that has the responsibility for the position and is monitoring the position. There is no need for this addition.
<p>Response: The SDT intended the footnote to clarify that each individual in training must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably.</p>		
NIPSCO	Yes	Yes & no, it’s still vague who must be certified and in the SAR it was suggested that this issue be addressed as it relates to the 2006 unapproved interpretation. However, from a compliance point of view we’re not sure if this is a bad thing.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. However, the majority of the industry supported the SDT’s position on this subject.</p>		
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
FirstEnergy	Yes	

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Organization	Yes or No	Question 3 Comment
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	
Edward c. Stein	Yes	
Exelon	Yes	
The United Illuminating Company	Yes	
Manitoba Hydro	Yes	
South Carolina Electric and Gas	Yes	
Xcel Energy	Yes	
Oncor Electric Delivery	Yes	

4. The SDT has modified the Measure to better align with the Requirement(s). The Measure now reads “Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3):

M1.1 A list of Real-time operating positions.

M1.2 A list of System Operators assigned to its Real-time operating positions.

M1.3 A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date.

M1.4 Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

Do you agree that the Measure is now better aligned with the Requirement(s)? If not, please explain in the comment area.

Summary Consideration:

The majority of the commenters felt that Measure M1.1 and M1.2 were redundant to Measure M1.4 and therefore should be eliminated and that Measure M1.3 should only require the System Operator’s name and certificate number. Measures M1.1, M1.2, M1.3 and M1.4 are all necessary because entities document their work schedules differently and these measures will ensure there is sufficient evidence to prove compliance. Regarding the comment suggesting that Measure M1.3 should only require the System Operator’s name and certificate number - the present wording allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. The measure is worded this way to allow an entity being audited to determine the method that best suits its needs. The Measure, as presently worded, allows an entity to use the method as described in their comment.

A few of the commenters wanted the word “competency” to be changed to “capability”. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The “Areas of Competency” as used in the proposed standard represent the most efficient and effective method for meeting the FERC Directive.

A couple commenters felt that Measure M1.1 should be removed since System Operators performing the same reliability-related function could have different titles at different entities. The SDT agrees that different entities could have different titles for the

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same function and that is why the entity itself needs to identify those operating positions that perform Real-time reliability-related tasks.

Organization	Yes or No	Question 4 Comment
Electric Market Policy	No	<p>Dominion recommends changes to the above sentence to read as follows; M1.3 System Operators name and NERC certificate number. Dominion believes providing a 'copy' of a certificate does not represent the validity of the certificate. The "proof" is the NERC certificate test results which NERC has on file internally. SO Name and certificate number should be sufficient.</p> <p>M1.1, M1.2, are redundant to M1.4. Eliminate M1.1 and M1.2. ET recommends changes to the above sentence to include 'NERC certified'M 1.4 Work schedules, work logs, or other equivalent evidence showing which 'NERC certified' System Operators were assigned to work in Real-time operating positions.</p>
<p>Response: M 1.3 allows for either "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date". This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p> <p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance.</p>		
SERC OC-SOS Standards Review Group	No	<p>In the Measure statement, the word "competency" should be changed to "capability" for the reasons given in our response to Question 3 above.</p> <p>For M 1.1, our group feels that maintaining a list of specific operating position titles as evidence may lead to confusion among the auditors. System operators who perform the same reliability functions will undoubtedly have different titles at different entities. These title differences could lead to unnecessary and lengthy discussions during the audit process. Our feeling is that the position title itself should not matter as long as an entity can show evidence that each operator is NERC-certified and in what specific credential.</p> <p>A good solution to streamline the measures and avoid confusion during an audit would be to fold both measures M 1.1 and M 1.2 into M 1.4. In M 1.4, add the phrase "NERC-certified" before "System Operators". The work schedules/work logs evidence required by M 1.4 will identify each operator assigned to perform Real-time reliability functions, as well as his/her Real-time operating position. M 1.1 & M 1.2 evidence is redundant and these measures can be eliminated.</p> <p>For M 1.3 - Our group strongly feels that maintaining a paper or electronic copy of each operator's actual NERC certificate is unnecessary and can be problematic, since only the operator has access to his/her actual certificate. Instead, the evidence of certification for System Operators should be simply a list of the certificate</p>

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Organization	Yes or No	Question 4 Comment
		<p>numbers and the issuance/expiration dates. If an employer does not have this information and cannot obtain it from the operator, the employer does have recourse to get confirmation from NERC that an individual holds a valid NERC certificate (Ref: p.14 of System Operator Certification Program Manual, updated November 2009). We realize that M 1.3 requires as evidence EITHER a copy OR the number/expiration date for the certificate; however the implication is that, if an actual copy cannot be produced, the entity is not complying as well with the standard as those entities that CAN produce a copy. This group feels that, for consistency and fairness to all entities, the certificate copy evidence should be eliminated. Therefore, we ask the standard drafting team to please consider changing the statement for M 1.3 to: M 1.3 NERC certificate number with expiration date for each System Operator.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The SDT agrees with you that the names of operating positions can vary from entity to entity, so the SDT believes the entity itself must identify those operating positions that perform Real-time reliability-related tasks.</p> <p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance.</p> <p>M1.3 allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p>		
Southern Company	No	<p>Again, in line with our comment on #3, we request that “competency” be changed to “capability”.</p> <p>M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures.</p> <p>M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined.</p> <p>To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure. M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just</p>

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Organization	Yes or No	Question 4 Comment
		<p>maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read "NERC certificate number with issuance & expiration date for each System Operator."</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The SDT agrees with you that the names of operating positions can vary from entity to entity, so the SDT believes the entity itself must identify those operating positions that perform Real-time reliability-related tasks.</p> <p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance.</p> <p>M1.3 allows for either "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date". This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p>		
NIPSCO	No	<p>No, "reliability related tasks" should be included in the measurements M1.1 & M1.2 since only the system operators performing such tasks need to be certified.</p>
<p>Response: The SDT believes that your suggested modification is already included in the Measure M1 and therefore does not need to be repeated in the sub-measures.</p>		
Duke Energy	No	<p>We believe M1.1 creates potential for confusion and should be deleted. It is not part of any of the requirements. M1.2, M1.3 and M1.4 are sufficient.</p>
<p>Response: The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance. The names of operating positions can vary from entity to entity; the entity must identify those operating positions that perform Real-time reliability-related tasks under M1.1 so that an auditor can determine whether "Real-time operating positions" were properly staffed.</p>		

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Organization	Yes or No	Question 4 Comment
San Diego Gas and Electric Co.	No	How about emergency exceptions? The previous version of this standard, PER-003-0, allows for emergency exceptions in M1.2.
<p>Response: The drafting team believes that the transition to the backup control center is covered by EOP-008-0 Requirement R1.8 and in EOP-008-1 Requirements R1, R3 and R4.</p>		
Entergy Services	No	M1.3 - It should not be necessary to provide a copy of the NERC certificate. A list of operators and certificate numbers and dates should be sufficient. NERC should be able to verify if the names and numbers are correct and current. I recommend that only the certificate number be required in M1.3
<p>Response: M1.3 allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p>		
ERCOT ISO	No	As explained in its response to Question 3, ERCOT ISO disagrees with the use of the word “competency” and thinks the word “knowledge” applies more appropriately. ERCOT ISO agrees with the wording of the measures, as they apply to all the requirements.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p>		
Brazos Electric Power Cooperative, Inc.	No	Simplify by striking "demonstrated the applicable minimum competency by obtaining and maintaining" from the Measure.
<p>Response: The SDT believes that the phrase is needed in the measure to provide clarity to the industry. In addition, the SDT feels that this language directly supports the language used in the Requirement.</p>		
ATC	No	<p>Clarity should be provided in M1.1. Is this a list of positions that could perform real-time operating positions or a job description?</p> <p>In addition changing the statement to read “Each Reliability Coordinator, Transmission Operator and Balancing Authority may use the following evidence...” will indicate that the entity may use other evidence to demonstrate compliance and that these are only examples. The measures should not be prescriptive or limiting</p>
<p>Response: The Measure M1.1 clearly states “A list of Real-time operating positions”. If a job description provides enough information to provide an auditor with</p>		

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Organization	Yes or No	Question 4 Comment
<p>the information needed to show which Real-time operating positions need to have certified individuals performing the duties of that position, then you could use a job description.</p>		
<p>The SDT believes that the present wording of the Measure provides for the most consistent, efficient and effective way for an entity to show compliance.</p>		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>		
The United Illuminating Company	Yes	For clarity, consider modifying M1 to include the phrase performing reliability-related tasks, e.g A list of Real-time operating positions performing reliability-related tasks.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. The SDT believes that your suggested modification is already included in the Measure M1 and therefore does not need to be repeated in the sub-measures.</p>		
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
FirstEnergy	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
Midwest ISO Standards Collaborators	Yes	
NextEra Energy	Yes	
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	

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Organization	Yes or No	Question 4 Comment
Consumers Energy	Yes	
Edward c. Stein	Yes	
Exelon	Yes	
Manitoba Hydro	Yes	
South Carolina Electric and Gas	Yes	
Xcel Energy	Yes	
American Electric Power (AEP)	Yes	
FRCC Manager of Operations	Yes	
US Bureau of Reclamation	Yes	
Covanta Energy	Yes	
Oncor Electric Delivery	Yes	

5. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Summary Consideration: A few of the commenters felt the ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard and remove the competencies from the standard. T NERC, the ERO, currently provides the System Operator Certification Program on which this standard is based. T The System Operator Certification program, by design, is autonomous and t already included in the NERC Rules of Procedure. The SDT believes that placing a requirement in this standard for the ERO to provide this System Operator Certification Program would compromise the autonomy of this program and weaken the program.

One commenter stated that the SAR suggested that “grandfathering” be addressed but did not see it in this proposed standard. The SDT considered grandfathering at length during the initial standard drafting phase. The SDT determined, and the industry supported the SDT’s position, that grandfathering is not appropriate for this standard.

Another commenter felt that since the previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance, this version of the standard should contain variations in the VSLs. The SDT e believes the Requirements are binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with at least a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.

Some commenters restated their concerns with the inclusion of minimum competencies, the clarity of the footnote, the formatting used in the Requirements and the use of the term “System Operators”. The SDT restated its response to these concerns.

Organization	Yes or No	Question 5 Comment
MRO's NERC Standards Review Subcommittee		<p>The NSRS recommends that the requirements regarding the “minimum competencies” are misapplied to the functional entities. As stated in R1, R2, and R3 a System operator has to demonstrate minimum competencies that are obtained by a valid NERC Reliability Operator certificate. Applicable entities have no ability to know if these “areas of Competency” are adequately addressed within the NERC Certification Program (the test) or not. If the SDT believes that System Operators require a valid NERC Certificate to operate a Real-time position responsible for control of the BES, it should be simply stated.</p> <p>If not these Areas of Competency should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with staff that has</p>

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Organization	Yes or No	Question 5 Comment
		<p>been become certified and maintained that certification through NERC. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow requirements on the ERO. As an example, the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting includes many requirements on the ERO and is following the result-based approach.</p>
		<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it.</p>
Midwest ISO Standards Collaborators		<p>The requirements regarding the minimum competencies are misapplied to the functional entities. They should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with staff that has become certified and maintained that certification through NERC. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow requirements on the ERO. As an example, the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting includes many requirements on the ERO and is following the results-based approach.</p>
		<p>Response: NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>
SERC OC-SOS Standards Review Group		<p>To better identify the operators to whom this standard applies, please consider changing the title of the standard to “Real-time Operating Personnel Credentials”</p>

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Organization	Yes or No	Question 5 Comment
		<p>To be consistent with other reliability standards, please consider adjusting the numbering of the measures to be the same as the numbering of the requirements.</p> <p>The standard drafting team is to be commended for their thoughtful consideration of comments from the last review cycle, and their response to every concern from the industry."The comments expressed herein represent a consensus of the views of the above named members of the SERC OC-SOS Standards Review Group only and should not be construed as the position of SERC Reliability Corporation, its board or its officers."</p>
<p>Response: The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard. The SDT believes that all three Requirements use the same method to demonstrate compliance and therefore did not feel it was necessary to repeat the Measure three times. If your comment concerns the formatting used in this standard, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p> <p>The SDT thanks you for your compliment.</p>		
Electric Market Policy		<p>Consider changing title of Standard to include "Real Time" Operating Personnel Credentials Standard. This would eliminate the potential ambiguity or perception requiring Transmission Planners and other support staff to be NERC certified.</p>
<p>Response: The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard.</p>		
Southern Company		<p>For consistency and to better identify the application of the standard, we suggest changing the title to "Real-time Operating Personnel Credentials"</p> <p>Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.</p>
<p>Response: The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard. The SDT believes that all three Requirements use the same method to demonstrate compliance and therefore did not feel it was necessary to repeat the Measure three times. If your comment concerns the formatting used in this standard, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p>		
ATC		<p>ATC recommends that the footnote be changed to read "Personnel learning or observing the tasks of an operating position must be under the direct supervision of a NERC Certified System Operator at that operating position who has the sole responsibility for the performance of the reliability-related task." Delete the words "non-NERC certified".ATC is concerned that the qualifying term "non-NERC Certified" is too</p>

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Organization	Yes or No	Question 5 Comment
		<p>prescriptive in identifying who qualifies as a trainee. Entities may have a trainee that is NERC Certified but has not been cleared to work the desk. The qualifying term (non-NERC Certified) would make it unnecessarily difficult for entities to identify those individuals as a trainee.</p>
<p>Response: Your requested change could lead to the assumption that the intent of the footnote was only to allow for trainees. The SDT does not believe that the present wording limits the trainee to non-certified personnel. The footnote is designed to limit the tasks that a non-NERC certified individual can independently perform. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks”.</p> <p>The SDT believes that in addition to achieving NERC certification, it is the entity's responsibility to determine when an individual (trainee) is qualified to fill a Real-time operating position.</p>		
Edward c. Stein		<p>The changes try to clarify the motherhood and apple pie statements. the real test will be how the Compliance people interpret and measure the standard</p>
<p>Response: The SDT thanks you for your clarifying comment.</p>		
NIPSCO		<p>In the context of NERC Reliability Standards we believe that Generator Operator should be removed from the System Operator definition. Throughout the standards and the SOCCED we think that System Operator includes only BA, RC & TOP.</p> <p>Also, it was suggested in the SAR that “grandfathering” be addressed and we don’t see that.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is another effort underway to modify the definition of “System Operator” to remove the reference to “Generator Operator.”</p> <p>The SDT considered grandfathering at length during the initial standard drafting phase. The SDT determined and the industry supported the SDT’s position that grandfathering was not appropriate for this standard.</p>		
San Diego Gas and Electric Co.		<p>Section D, #2 (Violation Severity Levels) -- there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.</p>
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set</p>		

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Organization	Yes or No	Question 5 Comment
of competencies sitting in each RC, TOP, and BA control room at all times.		
Xcel Energy		We continue to assert that listing the competencies here is ineffective. This standard should only list the certificates required for each function (e.g. BA, TOP, RC). The competencies should be outlined in the governing documents for the certification development. Entities have no control over what is contained within the exams to obtain those certificates, thus it is pointless to even list those competencies in the standard unless they are applicable to the entity and they can do something to affect compliance with those competencies listed. To address concerns about competencies, we also believe that PER-005 spells out that operators have requirements to identify reliability tasks and have demonstrated competency to those tasks.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>		
FRCC Manager of Operations		Please see presponse to question 3. Thanks for the opportunity to comment.
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p>		
FirstEnergy		FE supports the changes and thanks the drafting team for their hard work on this project.
<p>Response: The SDT thanks you for your clarifying comment.</p>		
BGE		We support the clarification of PER-003 in this new revision. We also support the use of the NERC System Operator Certification Program as a manner in which to ensure that System Operators can demonstrate competency in the reliability-related tasks of their position.
<p>Response: The SDT thanks you for your clarifying comment.</p>		
ERCOT ISO		As explained in its response to Question 3, ERCOT ISO disagrees with the use of the word “competency” and thinks the word “knowledge” applies more appropriately. These requirements are part of the System Operator Certification and are assessed by the Personnel Certification Governance Committee (PCGC).
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of</p>		

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 5 Comment
		<p>Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>
NextEra Energy		See question 3.
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p>		
Consumers Energy		Please see comment #3.
<p>Response: The SDT intended the footnote to clarify that each individual in training must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably.</p>		

Consideration of Comments on Initial Ballot — Certifying System Operators (Project 2007-04) Date of Initial Ballot: September 14-24, 2010

Summary Consideration: An initial ballot of PER-003-1 was conducted from September 14-24, 2010 and achieved a quorum with 92.73% of the ballot pool returning a ballot, and with a weighted segment approval of 79.17%.

The majority of the negative comments indicated that minimum competencies should not be included in the standard. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The “Areas of Competency” as used in the proposed standard represents the most efficient and effective method identified for meeting this FERC directive. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program will use both now and in the future. In addition, recertification through training will also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.

Several balloters expressed concerns that the minimum competencies were not directly expressed in the measures. The “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.

Several balloters indicated that Measure M1.1 and M1.2 are redundant to Measure M1.4 and therefore should be eliminated and that Measure M1.3 should only require the System Operator’s name and certificate number. Measures M1.1, M1.2, M1.3 and M1.4 are all necessary because entities have different job titles for their System Operators, and entities document their work schedules differently and that these measures would ensure the evidence was sufficient to prove compliance. Regarding the comment suggesting that measure M1.3 should only require the System Operator’s name and certificate number, the present wording allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. The wording of the measure allows an audited entity to determine the method of demonstrating compliance that best suits its needs. The Measure, as presently worded, allows an entity to use the method proposed by balloters.

Several balloters questioned the formatting used in the Requirements. The formatting used in the Requirements of the proposed standard is consistent with the guidance provided by NERC staff. Sub-requirements are no longer preceded by a capital, “R” and are now called, “Parts” of a requirement, rather than “Sub-requirements.”

Some balloters indicated that the term “System Operator” either should not be used in the standard or should be re-defined to exclude Generator Operators in the NERC Glossary definition. While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate effort underway to remove “Generator Operator” from the definition of “System Operator.”

A couple balloters indicated that the footnote, as written, was either unclear or incorrect. Their particular concern was with the phrase “at that position” because it could be taken literally to mean a qualified operator is required to sit behind the trainee. The SDT intended the footnote to clarify that each individual in training must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably. In addition, a few balloters wanted the footnote either removed or re-worded to read “The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks”. The requested change could lead to the assumption that the intent of the footnote was to allow for one certification to cover more than one person performing reliability-related tasks.

Some entities could assume that the shift supervisor in a multi-person control room would be the only one required to hold a valid NERC certification and that the others in the room worked directly under that person’s supervision. This is not what was intended. Each System Operator filling a real-time position that performs reliability-related tasks must hold a valid NERC certificate. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more desks are managed by a System Operator possessing the minimum competencies to respond to the situation reliably. Making the suggested modification would reduce clarity. The standard clearly identifies the operating position through the use of the phrase “Real-time operating positions performing (applicable entity) reliability-related tasks”. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”

A few balloters indicated that the ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard and recommended removing the competencies from the standard. NERC, as the ERO, currently provides the System Operator Certification Program on which this standard is based. This certification program, by design, is autonomous and already included in the NERC Rules of Procedure. Placing a requirement in this standard for the ERO to provide this System Operator Certification Program would compromise the autonomy of the certification program and weaken it.

A couple balloters wanted to change the phrase “performing reliability-related tasks” to “meeting its functional obligations”. The phrase “meeting its functional obligations” as described in the functional model, could include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators. The SDT did not, therefore revise the standard in support of this suggestion.

Another couple of balloters indicated that this draft standard should contain variations in the VSLs. The requirements are binary in that the System Operator either holds the appropriate, valid certificate or does not. The Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with at least a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herbert Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

Voter	Entity	Segment	Vote	Comment
Rodney Phillips	Allegheny Power	1	Negative	This standard has not successfully answered the question of who is required to be certified.

Response: The SDT believes that the standard clearly states “...System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator...” must hold the appropriate, valid NERC certificate. Operating position titles can vary from entity to entity; therefore, the SDT feels the entity itself must identify those operating positions that perform Real-time reliability-related tasks.

¹ The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.
November 30, 2010

Voter	Entity	Segment	Vote	Comment
John Bussman	Associated Electric Cooperative, Inc.	1	Negative	<p>Associated Electric Cooperative Inc (AECI) agrees with what it believes to be the intent of Footnote 1. However, a strict letter of the law interpretation of the proposed wording might result in undesirable consequences. It would seem the footnote, as written, could be construed so that supervision would be required for only those trainees holding certification from an entity other than NERC. Trainees with no certification whatsoever would not be covered by the footnote and, therefore, no supervision would be required.</p> <p>Also, some initial training for potential System Operators could be “learning the tasks of a real-time operating position”, in a classroom or self study setting. This would not require direct supervision of a NERC Certified System Operator.</p> <p>AECI suggests some of the language from Measure M1.1 of the current standard could be incorporated to something like, “While in training, personnel without proper NERC certification may not perform any tasks of a real-time operating position except under the direct, continuous supervision and observation of the NERC Certified System Operator at that operating position. The NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>Response: The scope of this standard is limited to NERC certification. Therefore, the SDT has only addressed whether an individual is NERC certified or not NERC certified.</p> <p>The standard is not applicable to training provided in a classroom or self study setting. This standard only applies to Real-time operating positions performing reliability-related tasks.</p> <p>Your proposed wording from Measure M1.1 of the current standard introduces the possibility that an entity could misinterpret the standard to mean that if a non-NERC certified person performing the task has been determined by the entity to be fully trained, that trainee would not require “direct, continuous supervision and observation” to perform Real-time reliability-related tasks. The SDT feels that the revised footnote has sufficient clarity that would prohibit this situation. The present wording of the revised footnote is “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>				

Voter	Entity	Segment	Vote	Comment
Scott Kinney	Avista Corp.	1	Negative	<p>Avista generally supports the modified standard but strongly believes that the addition of the competency section adds significant confusion and provides no value.</p> <p>There are no measures in the standard that address the competency requirements so the language doesn't add value. System Operator competency requirements are already addressed and measured in the NERC certification process and PER-005-1.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the "Areas of Competency" are not explicitly included in the Measure M1. However, the SDT believes that the "Areas of Competency" are implicitly included in Measure M1 by the statement "demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate".</p>				
Tony Kroskey	Brazos Electric Power Cooperative, Inc.	1	Negative	Additional clarification is needed.
<p>Response: The SDT thanks you for your comment. However, your comment does contain enough information for the SDT to respond.</p>				

Voter	Entity	Segment	Vote	Comment
Gordon Pietsch	Great River Energy	1	Negative	<p>The definition of "System Operator" in the NERC Glossary includes "Generator Operator", however generator operators are not covered in any specific requirement in the standard. We believe the term "Generator Operator" should be removed from the definition of "System Operator", or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. GRE believes that it is important to note that the Generator Operator is the Registered Entity that performs the functions as listed in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not the person operating the generator.</p> <p>If the drafting team believes that System Operators require a valid NERC Certificate to fill Real-time operating positions responsible for control of the BES and that they be certified through the NERC System Operator Certification Program and that these System Operators meet certain competencies then it should be a requirement of the ERO to develop a System Operator Certification program that includes these competencies where by obtaining the requisite certification the System Operator would have demonstrated these competencies. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow the ERO to be set as an applicable entity. An example of this is the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting which includes a number of requirements applicable to the ERO and is following the results-based approach.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is another effort underway to revise the definition of System Operator to remove the reference to "Generator Operator."</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Consideration of Comments on Initial Ballot of PER-003-1 – Operating Personnel Credentials (Project 2007-04)

Voter	Entity	Segment	Vote	Comment
Michael Moltane	International Transmission Company Holdings Corp	1	Negative	ITC is concerned with the use of the term "reliability-related tasks" in R2 and M1, a term also used in PER-005. By this going into place prior to PER - 005 implementation we may be forced to identify our reliability-related tasks a year earlier than PER-005 mandate.
Response: The SDT thanks you for your comment. However, regulatory approval and subsequent implementation of the reliability standard is outside the control of the SDT.				
Terry Harbour Christopher Schneider	MidAmerican Energy Co.	1 5	Negative	MidAmerican believes that if wording about "positions performing Transmission Operator reliability-related tasks" cannot be included or the PER-003 standard effective date must be extended out beyond the current PER-005 date to avoid incorrectly advancing NERC compliance on reliability related tasks already identified in a FERC Order.
Response: The SDT thanks you for your comment. However, regulatory approval and subsequent implementation of the reliability standard is outside the control of the SDT.				

Voter	Entity	Segment	Vote	Comment
Lawrence R. Larson	Otter Tail Power Company	1	Negative	<p>The proposed purpose statement does not align with the requirements as proposed, and the proposed measurements only focus on the Registered Entity (RE) ensuring each real-time operating position is staffed with properly NERC certified staff according to the function performed, with no reference of any measurements to the competency lists identified in each requirement. A NERC System operator certification credential does not alone guarantee operational competency. Competency encompasses a combination of knowledge, skills, and behaviors to perform a specific role.</p> <p>Furthermore the NERC System Operator Certification Program is a knowledge based assessment, as it does not clearly define the assessment of skills and behaviors related to the high-level competencies listed in the certification exam content outlines. This is further demonstrated by the Standard Drafting Team stating in consideration of comments received on the draft, under question 10A, that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations." The current verbiage leaves too much open for interpretation, and should be further defined to alleviate any inconsistency in the application and interpretation of this standard.</p> <p>This standard should focus on requiring System Operators (associated with RC, TOP and BA) to be NERC certified and should not address the competency list per function as a requirement of the RC, TOP, and BA Function. This standard should instead address this issue through the NERC system operator certification program as administered through the NERC Personnel Certification Governance Committee (PCGC). The PCGC has a well defined process that ensures the applicability of competencies to each credential through the use of job analysis, a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.</p> <p>The defined requirements as listed 1 through 3 (with the omission of the competency lists) could stand, thus ensuring that the RE of the function is required to staff the real-time operating positions with individuals currently certified with the proper NERC Certificates as defined in each requirement.</p>
<p>Response: The drafting team believes that the NERC System Operator Certification Program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. With this in mind, the drafting team believes the purpose statement " To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System" is clear.</p>				

Voter	Entity	Segment	Vote	Comment
				<p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p> <p>The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System. The drafting team also believes that experience, training, and skills demonstrations beyond the achievement of NERC Certification is a good business practice that is fulfilled by the recertification through the NERC Continuing Education Program in use by the NERC Certification Program.</p> <p>FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p>

Voter	Entity	Segment	Vote	Comment
Catherine Koch	Puget Sound Energy, Inc.	1	Negative	<p>PSE appreciates the SDTs need to include the areas of competency described in R1.1 and R2.1 as directed by FERC. However the structure of these competencies are included leave the applicable entities in a vulnerable predicament as what is included in the NERC System Operator Certification program is not in their control. It could be that the program at some point doesn't meet the R1.1 and R2.1 leaving the entities to determine then how best to meet these requirements. We suggest at minimum, that NERC becomes an entity for this this standard is applicable (to be noted in the applicability section) and a sentence describing NERC's role in assuring these competencies are addressed in their program be added. There are other standards such as the CIP standards in which NERC is listed in the applicability section. This would seem to ensure a gap doesn't inadvertently develop.</p> <p>Additionally, the proposed standard uses several capitalized terms without proposing definitions for them, including "NERC System Operator Certification Program", "Reliability Operator, "Balancing, Interchange and Transmission Operator" and "Balancing and Interchange Operator." These terms still need to be defined within the standard at minimum or the NERC Glossary.</p> <p>Also the footnote formulation is different on p. 2 and p. 3. The formulation on p. 3 should be used in both places if we have to use one or the other, but an even better formulation is set forth in M1.1 of the current standard.</p> <p>Finally, a small issue is that the subsections to the requirements are not labeled with a preceeding "R" for consistency with other standards.</p>
<p>Response: The drafting team believes that the NERC System Operator Certification Program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. With this in mind, the drafting team believes the purpose statement " To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System" is clear.</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>The term NERC System Operator Certification Program is capitalized in the standard because it is the Title of the program in use by NERC for certifying system operators. The terms "Reliability Operator, "Balancing, Interchange and Transmission Operator" and "Balancing and</p>				

Voter	Entity	Segment	Vote	Comment
<p>Interchange Operator” are capitalized in the standard because they are the Titles of the certificates used by the NERC System Operator Certification Program. While this capitalization may not be consistent with the grammar rules for NERC Standards, it is consistent with the rules of grammar for the English language.</p> <p>The SDT thanks you for noticing the error between the two footnotes. The SDT has reworded the footnote to provide additional clarity. The present wording of the revised footnote is “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT appreciates your comments concerning the formatting used in the proposed draft standard. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. Sub-requirements are no longer preceded by a capital, “R” and are now called, “Parts” of a requirement, rather than “Sub-requirements.”</p>				
Richard McLeon	South Texas Electric Cooperative	1	Negative	STEC feels that all Reliability Coordinators, Transmission Operators, and Balancing Authorities should staff their real-time operating positions with System Operators who have demonstrated minimum competency by obtaining and maintaining a valid NERC Reliability Operator certificate.
<p>Response: The SDT recognizes that there are various organizational structures for the Real-time operating positions performing reliability-related tasks on the BES. This standard has been designed to fully utilize the flexibility provided by the NERC Certification Program.</p>				
Mark B Thompson	Alberta Electric System Operator	2	Negative	The requirements and measures should be reworded to eliminate the term “competency”. The competency lists should not be included in the standard. Competency is ensured by The Systematic Approach to Training required by PER-005, which requires that training programs are developed based on specific tasks.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a</p>				

Voter	Entity	Segment	Vote	Comment
<p>valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
Jason L Marshall	Midwest ISO, Inc.	2	Negative	<p>The phrase "performing Reliability Coordinator reliability-related tasks" is a concern. We suggest to use the phrase "meeting its functional obligations" instead. The new version of EOP-008 uses similar wording to our proposal. In this way, it ties to what reliability tasks the standard applies directly back to the functional model.</p> <p>Furthermore, the functional model contains a list of reliability tasks. The competencies areas should apply to the ERO since it manages the certification program. Then there should be a requirement for functional entities to have NERC certified System Operators. This will ensure that the certification program only certifies that operators meet these competencies. The way the standard is currently written could allow the certification program to be deficient in some of the areas of competencies. There is a precedent that the new results based approach allows standards to have requirements that apply to the ERO. See the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting.</p>
<p>Response: The wording "meeting its functional obligations" as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
Bob Reeping	Allegheny Power	3	Negative	<p>This standard has not successfully answered the question of who is required to be certified.</p>
<p>Response: The SDT believes that the standard clearly states "...System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator..." must hold the appropriate, valid NERC certificate. Operating position titles can vary from entity to entity; therefore, the SDT feels the entity itself must identify those operating positions that perform Real-time reliability-related tasks.</p>				

Voter	Entity	Segment	Vote	Comment
Horace Stephen Williamson	Southern Company Services, Inc.	1	Negative	<p>Ref R1-3 We believe the term “competency” should be changed to “capability” to more accurately reflect the purpose of the statement. The certification process assures that an operator is “capable” of performing reliability related tasks, not that the operator is “competent” in performing those tasks. In order to determine “competency”, the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term “competency” should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term “competency” to “capability” in each of the three requirements.</p> <p>We believe that listing the specific technical “Areas of Competency” under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the “Areas of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements.</p> <p>Ref M1-4 Again, in line with our previous comment , we request that “competency” be changed to “capability”. M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures.</p> <p>M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently</p>
Richard J. Mandes	Alabama Power Company	3		
Anthony L Wilson	Georgia Power Company	3		
Gwen S Frazier	Gulf Power Company	3		
Don Horsley	Mississippi Power	3		

Voter	Entity	Segment	Vote	Comment
				<p>present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure.</p> <p>M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read “NERC certificate number with issuance & expiration date for each System Operator.”</p> <p>Additional For consistency and to better identify the application of the standard, we suggest changing the title to “Real-time Operating Personnel Credentials” Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p> <p>The SDT appreciates your comments concerning the formatting used in the proposed draft standard. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. Sub-requirements are no longer preceded by a capital, “R” and are now called, “Parts” of a requirement, rather than “Sub-requirements.”</p>				

Voter	Entity	Segment	Vote	Comment
<p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their position titles and work schedules differently and this ensures that evidence is sufficient to prove compliance.</p> <p>M1.3 allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. This was done to allow the entity being audited to determine the method that best suits their needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p> <p>The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard.</p>				
<p>Charles A. Freibert</p> <p>Daryn Barker</p>	<p>Louisville Gas and Electric Co.</p>	<p>3</p> <p>6</p>	<p>Negative</p>	<p>Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
<p>John S Bos</p>	<p>Muscatine Power & Water</p>	<p>3</p>	<p>Negative</p>	<p>There is no way for a Registered Entity to ensure minimum competencies are obtained through a NERC Certification test. NERC controls what is on each individual test, not the Registered Entity. To put the burden of obtaining minimum competency on the Registered Entity based on what is on the NERC Certification test, simply is unjust.</p>

Voter	Entity	Segment	Vote	Comment
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
<p>Scott Peterson</p>	<p>San Diego Gas & Electric</p>	<p>3</p>	<p>Negative</p>	<ol style="list-style-type: none"> 1. The term "NERC System Operator Certification Program" needs to be defined. 2. In R2, "Transmission Operator reliability-related tasks" need to be clearly defined and/or identified. Additionally, the following insertions (in bold red) need to be made to the text: ". . . in the areas listed in R2.1 by obtaining and maintaining one of the following valid NERC certificates listed in R2.2". 3. Measures: How about emergency exceptions? The previous version of this standard, PER-003-0, allows for emergency exceptions in M1.2 during control center transfers. 4. Violation Severity Levels - there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.
<p>Response: The NERC System Operator Certification Program is a defined program in both the Rules of Procedure Section 600 & Appendix 6, System Operator Certification Program Manual.</p> <p>The SDT believes that reliability-related tasks can vary from entity to entity, so the entity itself must identify the tasks that it considers to be reliability-related. While the SDT appreciates your suggestion, the SDT does not believe that making the modification you are suggesting would provide any additional clarity.</p> <p>The drafting team believes that the transition to the backup control center is covered by EOP-008-0 Requirement R1.8 and in EOP-008-1 Requirements R1, R3 and R4.</p> <p>The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.</p>				

Voter	Entity	Segment	Vote	Comment
Kenneth Goldsmith	Alliant Energy Corp. Services, Inc.	4	Negative	<p>The definition of System Operator includes "Generator Operator", however Generator Operators is not included in any specific requirement in the standard. We believe the term "Generator Operator" should be removed from the definition of System Operator, or specifically noted as to not be applicable for this standard, to remove any ambiguity in the implementation of this standard.</p> <p>The requirements regarding the minimum competencies are misapplied to the functional entities. They should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with personnel who have become certified and maintain that certification through NERC.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate project underway working to revise the definition of "System Operator" to remove the reference to "Generator Operator."</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Voter	Entity	Segment	Vote	Comment
Joseph G. DePoorter	Madison Gas and Electric Co.	4	Negative	<p>Recommends that the SDT changes “performing reliability-related tasks” to “meeting its functional obligations” to reflect recent changes made to other approved standards.</p> <p>In addition, the definition of “System Operator” includes “Generator Operator”, however generator operators are not covered in any specific requirement in the standard. Believe the term “Generator Operator” should be removed from the definition of “System Operator”, or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. Would also like to point out the Generator Operator is the Registered Entity that meet the obligations set in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.</p> <p>Recommends that the requirements regarding the “minimum competencies” are misapplied to the functional entities. As stated in R1, R2, and R3 a System operator has to demonstrate minimum competencies that are obtained by a valid NERC Reliability Operator certificate. Applicable entities have no ability to know if these “areas of Competency” are adequately addressed within the NERC Certification Program (the test) or not. If the SDT believes that System Operators require a valid NERC Certificate to operate a Real-time position responsible for control of the BES, it should be simply stated.</p>
<p>Response: The wording “meeting its functional obligations” as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate project underway working to revise the definition of “System Operator” to remove the reference to “Generator Operator.”</p> <p>FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Voter	Entity	Segment	Vote	Comment
Henry E. LuBean	Public Utility District No. 1 of Douglas County	4	Negative	<p>Competency requirements and measures are not stated properly and are too difficult to measure adequately. Competency should be determined based on whether certification has been obtained or not in this industry. Each entity must determine whether a person is qualified to work as a system operator and this should not be based on whether competency is declared by some number of hours obtained in a classroom; it would help in determining full qualification but not to prevent it; certification can help in determining qualification but an undefined competency rule just compounds the issue unnecessarily.</p> <p>As for VSLs, being certified (and competent?) or not may or may not directly affect the BPS (BES) and therefore should not be at the highest level; medium or lower would be better. This issue is not as black or white as is a SOL violation and shouldn't be held to the same level of violation or penalty.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL." VRFs assess the criticality of a requirement with respect to reliability – VSLs assess the degree of noncompliance.</p>				
Daniel Mason	City and County of San Francisco	5	Negative	<p>As reflected in many pre-ballot comments, there is no need for competencies to be included in this standard. Registered Entities have no authority over the areas of competency demonstrated by obtaining and maintaining a valid NERC System Operator certificate. This standard should only require the applicable Registered Entity to staff its Real-time operating positions which are responsible for the control of the Bulk Electric System, with System Operators who possess the appropriate current and valid NERC System Operator certificate. Including competencies in PRC-003-1 only creates potential interpretation issues, added cost of compliance, with no obvious reliability benefit.</p>

Voter	Entity	Segment	Vote	Comment
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
David A. Lapinski	Consumers Energy	3	Negative	<p>We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.</p>
David Frank Ronk		4		
James B Lewis		5		
<p>Response: The SDT intended the footnote to clarify that each trainee must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably.</p> <p>Based on stakeholder comments, the SDT has revised the footnote to provide additional clarity. The present wording of the revised footnote is "Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p>				
Martin Bauer P.E.	U.S. Bureau of Reclamation	5	Negative	<p>The standard language is not consistent with the definition of System Operator. System Operator includes Generator Operator. The standard did not modify the definition of the System Operator to eliminate the inconsistency.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate project underway working to revise the definition of "System Operator" to remove the reference to "Generator Operator."</p>				

Voter	Entity	Segment	Vote	Comment
Paul B. Johnson	American Electric Power	1	Negative	AEP recommends that footnote number 1 should be removed from this standard. If it is to remain, AEP recommends that the language should be as follows: The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks. If our recommendations are not accepted, then the term "operating position" needs to be formally defined or removed.
Raj Rana	American Electric Power	3		
Brock Ondayko	AEP Service Corp.	5		
Edward P. Cox	AEP Marketing	6		
<p>Response: Your requested change could lead to the assumption that the intent of the footnote was to allow for one certification to cover more than one person performing reliability-related tasks. For example, some could assume that the Supervisor in a multi-person control room would be the only one required to hold a valid NERC certification and that the others in the room could work directly under that person's supervision. This is not what this drafting team intended. Each System Operator filling a real-time position that performs reliability-related tasks must hold a NERC certificate. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more desks are managed by a System Operator possessing the minimum competencies to respond to the situation reliably.</p> <p>The SDT feels making the suggested modification would reduce clarity. The SDT believes the standard clearly identifies the meaning of "operating position" through the use of the phrase "Real-time operating positions performing (applicable entity) reliability-related tasks". However, the SDT modified the footnote to provide further clarity. The footnote now reads "Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p>				
Joseph O'Brien	Northern Indiana Public Service Co.	6	Negative	See comments submitted under "Posted for Comment"
<p>Response: The SDT thanks you for your comment. Please refer to the SDT's responses to your comments referenced.</p>				
Alan R. Johnson	NRG Energy, Inc.	6	Negative	The standard fails to mention anything about restricting support personnel from being able to perform certain actions, such as control. EMS system support personnel can always use tools to manipulate database parameters, allowing themselves control ability. They all have database tools that are needed to manipulate systems in times of emergency support. The standard should address this.

Voter	Entity	Segment	Vote	Comment
<p>Response: This standard applies to Real-time operating positions. Support personnel should be prohibited by the responsible entity from operating any equipment in Real-time in accordance with the CIP standards.</p>				
Gregory L Pieper	Xcel Energy, Inc.	1	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
Michael Ibold		3		
David F. Lemmons		6		
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
John J. Moraski	Baltimore Gas & Electric Company	1	Affirmative	(See comment form for BGE comments)
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. Please refer to the SDT's response to the aforementioned comments.</p>				
Frank F. Afranji	Portland General Electric Co.	1	Affirmative	I agree with the changes proposed.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>				
Richard J Kafka	Potomac Electric Power Co.	1	Affirmative	There are some minor improvements possible: Section 2.1 should be renamed "Reliability-related Tasks" and the subjects "Protection and Control" and "Voltage and Reactive" should be more specific.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high</p>				

Voter	Entity	Segment	Vote	Comment
<p>enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System. Note that the topics listed under the "Areas of Competency" in the standard are identical to the content areas identified in the associated certification exam.</p>				
Richard Salgo	Sierra Pacific Power Co.	1	Affirmative	<p>In boiling down each of the three requirements, it is clear that the metric of compliance with each is that the System Operator obtain and maintain a valid NERC certification. The language, however, indicates that the System Operator must have "demonstrated minimum competency" in various areas. It is understood that this is a requirement of FERC Order 693, yet we are concerned that some yet to be defined demonstration criteria may be required in subsequent compliance audits beyond the mere evidence of certification. We would like clarification that audit evidence of compliance with this Standard will be limited to the specific items in section M1.1 through M1.4.</p>
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. The SDT believes that the requirement's phrase, ". . . System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC . . . certificate" is clear that the metric for demonstrating competency is the applicable certificate.</p>				
Ballard Keith Mutters	Orlando Utilities Commission	3	Affirmative	<p>It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected.</p>
<p>Response: The SDT believes that the requirement's phrase, ". . . System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC . . . certificate" is clear that the metric for demonstrating competency is the applicable certificate. In addition, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency".</p>				

Voter	Entity	Segment	Vote	Comment
Brad Chase	Orlando Utilities Commission	1	Abstain	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Richard Kinas		5	Affirmative	
<p>Response: The SDT believes that the requirement's phrase, ". . . System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC . . . certificate" is clear that the metric for demonstrating competency is the applicable certificate. In addition, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency".</p>				
James R. Keller	Wisconsin Electric Power Marketing	3	Affirmative	The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1.
Anthony Jankowski	Wisconsin Energy Corp.	4		
Linda Horn	Wisconsin Electric Power Co.	5		
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. The standard has only one measure that is covered by the Data Retention section.</p>				
Dennis Sismaet	Seattle City Light	6	Affirmative	Appropriate to change the language to indicate NERC certification as the requirement.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>				

Voter	Entity	Segment	Vote	Comment
James A Maenner		8	Affirmative	Listing Areas of Competency and Certificates as requirements in the standard does not add much value. Necessary competencies and applicable certificates are described in the NERC System Operator Certification Program manual and are established through the ERO not by individuals required to be certified. In addition, including Areas of Competency and Certificates in the standard may require revisions to the standard when updated in the program.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
Danny McDaniel	Cleco Power LLC	1	Affirmative	None
Michelle A Corley	Cleco Corporation	3	Affirmative	None
Stephanie Huffman	Cleco Power	5	Affirmative	None
Robert Hirschak	Cleco Power LLC	6	Affirmative	None

Consideration of Comments on Non-binding Poll of VRFs and VSLs for PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Date of Poll: September 14 – 24, 2010

Summary Consideration: A non-binding poll of VRFs and VSLs was conducted from September 14-24, 2010 and achieved a quorum with 86% of those who registered to participate provided an opinion; 83% of those who provided an opinion indicated support for the VRFs and VSLs that were proposed. The drafting team considered the comments submitted, but did not make any changes to the VRFs or VSLs based on those comments.

The majority of the negative commenters felt the VSLs were either set too high or should be graduated. The Requirement is binary in that the System Operator either has the appropriate, valid certificate or does not. The Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times. The Violation Severity Levels are based on the VSL Guidelines, Guideline 2 which states “A violation of a “binary” type requirement must be a “Severe” VSL.”

Several of the negative commenters felt that the VRFs were too high and should be at a medium level at best. The current standard contains a single requirement with a high VRF and the SDT believes that this is appropriate with the definition of a high VRF. The SDT is not saying that non-compliance will necessarily lead to cascading outages. In the event of an emergency an unqualified System Operator may not know what to do and his or her actions could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.

A few of the negative commenters wanted the “minimum competencies” removed from the proposed standard. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represent the most efficient and effective method of meeting this FERC directive and the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future; recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced his or her ability to operate the Bulk Electric System.

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herbert Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.

Voter	Entity	Segment	Vote	Comment
Robert Martinko	FirstEnergy Energy Delivery	1	Negative	FE believes that, although important to reliability, a violation of system operator certification does not present a HIGH risk to the BES. Therefore, we suggest changing the VRF from HIGH to MEDIUM in all three requirements of standard PER-003-1.
Kevin Querry	FirstEnergy Solutions	3		
Mark S Travaglianti	FirstEnergy Solutions	6		
Douglas Hohlbaugh	Ohio Edison Company	4		
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified System Operator may not know what to do and his or her actions could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.</p>				
Terry Harbour	MidAmerican Energy Co.	1	Negative	The high VRFs overstate the risk.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified System Operator may not know what to do and his or her actions could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.</p>				
James A Maenner		8	Negative	There needs to be more granularity in VFR/VSL. There is significant difference between an operator who's certificate recently expired and an operator who has never been certified. Recommend the following scale: Medium - an operator's certification expired 1 day to 30 days prior to the date of violation. High - an operator's certification expired 31 to 60 days prior to the date of the violation. Severe - operator never certified or certification expired over 60 days prior to the date of the violation.
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.</p>				

Voter	Entity	Segment	Vote	Comment
John Tolo	Tucson Electric Power Co.	1	Negative	Although System Operator certification is a requirement under PER-003, it is our belief that the mere act of taking a certification exam does not ensure that the System Operator is adequately trained or knowledgeable for situations that he or she may encounter. It is also our belief that the Violation Severity Level(VSL) should, at best, be "high" not Severe. thank you
<p>Response: The SDT believes that in addition to achieving NERC certification, it is the entity's responsibility to determine when an individual (trainee) is qualified to fill a Real-time operating position.</p> <p>The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Jason L Marshall	Midwest ISO, Inc.	2	Negative	We disagree with the VRFs. NERC's definition of a High VRF includes the following language: "A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation or a cascading sequency of failures...". No violation of any of these requirements could be deemed to directly cause instability, separation or cascading. Another event would have to occur such as an uncertified operator failing to take appropriate action. Even with an uncertified operator, the registered entity would have to violate PER-002, PER-004 and PER-005 as well. There are requirements in those standards regarding training for emergency conditions that will better prepare an operator. Thus, the requirements in PER-003 should not have High VRFs because there is no direct connection between a violation of the proposed requirements and instability, separation or cascading. Further, we argue that the requirements are largely administrative and therefore should have Lower VRFs.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore could result in cascading outages in a requirement that, if violated, could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.</p>				
Charles H Yeung	Southwest Power Pool	2	Negative	We do not support the standard as written. Please refer to the comments submitted by the IRC Stadnards Review Committee for our concerns.
<p>Response: The SDT cannot find in any of the Comment reports (formal comment period, initial ballot or this document) that references the IRC Standards Review Committee.</p>				

Voter	Entity	Segment	Vote	Comment
Tony Eddleman Don Schmit	Nebraska Public Power District	3 5	Negative	Violation Severity Levels are all Severe. It would seem that the amount of time a position was staffed with a non-certified person does not play into the severity, and it should. There is more risk involved the longer a position is staffed without a certified person.
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Scott Peterson	San Diego Gas & Electric	3	Negative	Violation Severity Levels - there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.</p>				
Michael Ibold	Xcel Energy, Inc.	3	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
<p>Response: FERC Order 693 contained a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. Note that the competencies identified for the certification exams are identified through a highly structured, valid process that involves incumbent System Operators. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
Henry E. LuBean	Public Utility District No. 1 of Douglas County	4	Negative	The VRFs seem to be OK but the VSLs are too high for affects on the BES. Direct affects on the reliability of the BES, such as SOL violations are clear, black or white. Indirect affects, or no affect at all, such as whether a system operator is certified or not, should not be held to such a "severe" level. Every decision of a system operator does not have a direct affect on the reliability of the BES; only the major ones that cause problems, under certain circumstances, at certain times, etc. etc. Even the major decisions don't cause negative problems most of the time. A single decision out of many, that might cause a negative problem, should not be held to the same VSL as the black and white reliability problems that occur one-on-one (directly).

Voter	Entity	Segment	Vote	Comment
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Alan Gale	City of Tallahassee	5	Negative	The exclusion of a clause to reduce the compliance severity if an emergency situation occurs that requires a non-certified person to be able to perform duties while transitioning to a backup facility will result in no-one performing any monitoring or any action during the transition because it is better to let the system fail than risk a High VRF with a Severe VSL.
<p>Response: The drafting team believes that the transition to the backup control center is covered by EOP-008-0 Requirement R1.8 and in EOP-008-1 Requirements R1, R3 and R4.</p>				
James B Lewis	Consumers Energy	5	Negative	Please see comments in the Standards vote.
<p>Response: The SDT thanks you for your comment. Please refer to our response in the initial ballot comment report.</p>				
Rex A Roehl	Indeck Energy Services, Inc.	5	Negative	Not all violations should be at the Severe level
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Charlie Martin	Louisville Gas and Electric Co.	5	Negative	Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."
<p>Response: FERC Order 693 contained a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Consideration of Comments on Non-binding Poll of VRFs and VSLs for PER-003-1 - Operating Personnel Credentials

Voter	Entity	Segment	Vote	Comment
Joseph O'Brien	Northern Indiana Public Service Co.	6	Affirmative	Given the standard the VSL's look fine.
Response: The SDT thanks you for your affirmative response and clarifying comment.				
Dennis Sismaet	Seattle City Light	6	Affirmative	Appropriate to change the language to indicate NERC certification as the requirement.
Response: The SDT thanks you for your affirmative response and clarifying comment.				
Brad Chase	Orlando Utilities Commission	1	Abstain	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Response: The SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency".				
Danny McDaniel	Cleco Power LLC	1	Affirmative	None
Michelle A Corley	Cleco Corporation	3	Affirmative	None
Stephanie Huffman	Cleco Power	5	Affirmative	None
Robert Hirschak	Cleco Power LLC	6	Affirmative	None

Consideration of Comments on Initial Ballot — Certifying System Operators (Project 2007-04)
Date of Initial Ballot: December 2-13, 2010

Summary Consideration:

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

Voter	Entity	Segment	Vote	Comment
Rodney Phillips	Allegheny Power	1	Negative	This standard has not successfully answered the question of who is required to be certified.
Paul B. Johnson	American Electric Power	1	Affirmative	AEP recommends that footnote number 1 should be removed from this standard. If it is to remain, AEP recommends that the language should be as follows: The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks. If our recommendations are not accepted, then the term "operating position" needs to be formally defined or removed. Footnote change is acceptable.
Jason Shaver	American Transmission Company, LLC	1	Negative	ATC supports the change to M1.3, however, the change to Footnote 1 has added more confusion rather than added clarity. To be clear, Footnote 1 should be revised to read, "Non-NERC certified System Operators in-training performing any reliability related tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position in the Control Center; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related task."
John Bussman	Associated Electric Cooperative, Inc.	1	Affirmative	Comments have been addressed
John J. Moraski	Baltimore Gas & Electric Company	1	Affirmative	(See comment form for BGE comments)
Tony Kroskey	Brazos Electric Power Cooperative, Inc.	1	Negative	Additional clarification is needed.

¹ The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.

Voter	Entity	Segment	Vote	Comment
Paul Rocha	CenterPoint Energy	1	Affirmative	CenterPoint Energy was pleased with the revisions that clarified the direct supervision of non-NERC certified personnel as well as the changes to M1.3. Therefore, CenterPoint Energy is changing its vote from "negative" to "affirmative".
Danny McDaniel	Cleco Power LLC	1	Affirmative	None
Gordon Pietsch	Great River Energy	1	Negative	The definition of "System Operator" in the NERC Glossary includes "Generator Operator", however generator operators are not covered in any specific requirement in the standard. We believe the term "Generator Operator" should be removed from the definition of "System Operator", or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. GRE believes that it is important to note that the Generator Operator is the Registered Entity that performs the functions as listed in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not the person operating the generator. If the drafting team believes that System Operators require a valid NERC Certificate to fill Real-time operating positions responsible for control of the BES and that they be certified through the NERC System Operator Certification Program and that these System Operators meet certain competencies then it should be a requirement of the ERO to develop a System Operator Certification program that includes these competencies where by obtaining the requisite certification the System Operator would have demonstrated these competencies. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow the ERO to be set as an applicable entity. An example of this is the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting which includes a number of requirements applicable to the ERO and is following the results-based approach.
Michael Moltane	International Transmission Company Holdings Corp	1	Negative	The list of skills added, generally speaking, give little value to this revision as they do nothing but define general areas that are included in the NERC exam. The compliance comes from being certified, and showing only certified folks are working; therefore our compliance proof will not change.
Terry Harbour	MidAmerican Energy Co.	1	Negative	MidAmerican believes that if wording about "positions performing Transmission Operator reliability-related tasks" cannot be included or the PER-003 standard effective date must be extended out beyond the current PER-005 date to avoid advancing incorrectly advancing NERC compliance on reliability related tasks already identified in a FERC Order.
Brad Chase	Orlando Utilities Commission	1	Abstain	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main

Voter	Entity	Segment	Vote	Comment
				requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Lawrence R. Larson	Otter Tail Power Company	1	Negative	The proposed purpose statement does not align with the requirements as proposed, and the proposed measurements only focus on the Registered Entity (RE) ensuring each real-time operating position is staffed with properly NERC certified staff according to the function performed, with no reference of any measurements to the competency lists identified in each requirement. A NERC System operator certification credential does not alone guarantee operational competency. Competency encompasses a combination of knowledge, skills, and behaviors to perform a specific role. Furthermore the NERC System Operator Certification Program is a knowledge based assessment, as it does not clearly define the assessment of skills and behaviors related to the high-level competencies listed in the certification exam content outlines. This is further demonstrated by the Standard Drafting Team stating in consideration of comments received on the draft, under question 10A, that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations." The current verbiage leaves too much open for interpretation, and should be further defined to alleviate any inconsistency in the application and interpretation of this standard. This standard should focus on requiring System Operators (associated with RC, TOP and BA) to be NERC certified and should not address the competency list per function as a requirement of the RC, TOP, and BA Function. This standard should instead address this issue through the NERC system operator certification program as administered through the NERC Personnel Certification Governance Committee (PCGC). The PCGC has a well defined process that ensures the applicability of competencies to each credential through the use of job analysis, a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines. The defined requirements as listed 1 through 3 (with the omission of the competency lists) could stand, thus ensuring that the RE of the function is required to staff the real-time operating positions with individuals currently certified with the proper NERC Certificates as defined in each requirement.
Frank F. Afranji	Portland General Electric Co.	1	Affirmative	I agree with the changes proposed.

Voter	Entity	Segment	Vote	Comment
Catherine Koch	Puget Sound Energy, Inc.	1	Negative	PSE appreciates the SDTs need to include the areas of competency described in R1.1 and R2.1 as directed by FERC. However the structure of these competencies are included leave the applicable entities in a vulnerable predicament as what is included in the NERC System Operator Certification program is not in their control. It could be that the program at some point doesn't meet the R1.1 and R2.1 leaving the entities to determine then how best to meet these requirements. We suggest at minimum, that NERC becomes an entity for this this standard is applicable (to be noted in the applicability section) and a sentence describing NERC's role in assuring these competencies are addressed in their program be added. There are other standards such as the CIP standards in which NERC is listed in the applicability section. This would seem to ensure a gap doesn't inadvertently develop. Additionally, the proposed standard uses several capitalized terms without proposing definitions for them, including "NERC System Operator Certification Program", "Reliability Operator, "Balancing, Interchange and Transmission Operator" and "Balancing and Interchange Operator." These terms still need to be defined within the standard at minimum or the NERC Glossary. Also the footnote formulation is different on p. 2 and p. 3. The formulation on p. 3 should be used in both places if we have to use one or the other, but an even better formulation is set forth in M1.1 of the current standard. Finally, a small issue is that the subsections to the requirements are not labeled with a preceeding "R" for consistency with other standards.
Rich Salgo	Sierra Pacific Power Co.	1	Affirmative	The SDT satisfactorily addressed our prior concern that an audit approach could conceivably require some yet-to-be-defined demonstration of competency, beyond the evidence of valid certification.
Horace Stephen Williamson	Southern Company Services, Inc.	1	Negative	Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the "Areas

Voter	Entity	Segment	Vote	Comment
				<p>of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that “competency” be changed to “capability”. M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure. M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read “NERC certificate number with issuance & expiration date for each System Operator.” Additional For consistency and to better identify the application of the standard, we suggest changing the title to “Real-time Operating Personnel Credentials” Also for consistency with other standards, we suggest changing the</p>

Voter	Entity	Segment	Vote	Comment
				measure numbering to directly reflect the corresponding requirement numbering.
John Tolo	Tucson Electric Power Co.	1	Affirmative	We support these changes
Gregory L Pieper	Xcel Energy, Inc.	1	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
Mark B Thompson	Alberta Electric System Operator	2	Negative	The requirements and measures should be reworded to eliminate the term "competency". The competency lists should not be included in the standard. Competency is ensured by The Systematic Approach to Training required by PER-005, which requires that training programs are developed based on specific tasks.
Jason L Marshall	Midwest ISO, Inc.	2	Affirmative	We don't agree with the response to our comments from the SDT during the initial ballot regarding our suggestion to change the phrase "performing Reliability Coordinator reliability-related tasks" to "meeting its functional obligations". The SDT indicated that the Function Model contains other tasks than reliability related tasks. The primary purpose of the Functional Model is to identify reliability related tasks to facilitate standards development. However, we don't believe this single issue probably warrants us to persist in our negative vote. We continue to believe that the competencies areas should apply to the ERO since it manages the certification program. Contrary to the SDT response to our comments, we don't believe that applying these requirements to the ERO threatens the autonomy of the certification program or weakens it in any way. In fact, identification of the areas of competency and application of the areas of competency to the ERO probably strengthens the program and improves the autonomy because it creates a common set of expectations. We do believe that application of the areas of competency to the responsible entities does create an unnecessary risk that NERC could change the certification program in a way that does not meet those areas of competency and thus, causes the responsible entity to be non-compliant. However, we are confident that NERC will work with the responsible entities to ensure this does not happen.
Charles H Yeung	Southwest Power Pool	2	Negative	We do not support the standard as written. Please refer to the comments submitted by the IRC Standards Review Committee for our concerns.

Voter	Entity	Segment	Vote	Comment
Richard J. Mandes	Alabama Power Company	3	Negative	<p>Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the "Areas of Competency" are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section "Areas of Competency" from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to "Areas of Capability" (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that "competency" be changed to "capability". M1.1 asks for a "list of Real-time operating positions". Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator's NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a "list of System Operators assigned to its Real-time operating positions" while M1.4 requests "evidence showing which System Operators were assigned to work in Real-time operating positions." We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term "NERC Certified" should precede the term "System Operators" in the new combined measure. M1.3 asks for "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date." We feel that attempting to</p>

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				maintain a copy of each operator's certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read "NERC certificate number with issuance & expiration date for each System Operator." Additional For consistency and to better identify the application of the standard, we suggest changing the title to "Real-time Operating Personnel Credentials" Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.
Bob Reeping	Allegheny Power	3	Negative	This standard has not successfully answered the question of who is required to be certified.
Michelle A Corley	Cleco Corporation	3	Affirmative	None
David A. Lapinski	Consumers Energy	3	Negative	We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.
Anthony L Wilson	Georgia Power Company	3	Negative	Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval.

Voter	Entity	Segment	Vote	Comment
				<p>The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the "Areas of Competency" are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section "Areas of Competency" from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to "Areas of Capability" (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that "competency" be changed to "capability". M1.1 asks for a "list of Real-time operating positions". Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator's NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a "list of System Operators assigned to its Real-time operating positions" while M1.4 requests "evidence showing which System Operators were assigned to work in Real-time operating positions." We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term "NERC Certified" should precede the term "System Operators" in the new combined measure. M1.3 asks for "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date." We feel that attempting to maintain a copy of each operator's certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read "NERC certificate number with issuance & expiration date for each System Operator." Additional For consistency and to better identify the application of the</p>

Voter	Entity	Segment	Vote	Comment
				standard, we suggest changing the title to "Real-time Operating Personnel Credentials" Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.
Gwen S Frazier	Gulf Power Company	3	Negative	<p>Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the "Areas of Competency" are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section "Areas of Competency" from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to "Areas of Capability" (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that "competency" be changed to "capability". M1.1 asks for a "list of Real-time operating positions". Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator's NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a "list of System Operators assigned to its Real-time operating positions" while M1.4 requests "evidence showing which System Operators were assigned to work in Real-time operating positions." We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term "NERC</p>

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				<p>Certified" should precede the term "System Operators" in the new combined measure. M1.3 asks for "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date." We feel that attempting to maintain a copy of each operator's certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read "NERC certificate number with issuance & expiration date for each System Operator." Additional For consistency and to better identify the application of the standard, we suggest changing the title to "Real-time Operating Personnel Credentials" Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.</p>
Charles A. Freibert	Louisville Gas and Electric Co.	3	Negative	<p>Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."</p>
Don Horsley	Mississippi Power	3	Negative	<p>Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program.</p>

Voter	Entity	Segment	Vote	Comment
				<p>Therefore we suggest changing the term “competency” to “capability” in each of the three requirements. We believe that listing the specific technical “Areas of Competency” under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the “Areas of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that “competency” be changed to “capability”. M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure. M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully</p>

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				complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read "NERC certificate number with issuance & expiration date for each System Operator." Additional For consistency and to better identify the application of the standard, we suggest changing the title to "Real-time Operating Personnel Credentials" Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.
John S Bos	Muscatine Power & Water	3	Affirmative	MP&W appreciates the thoughtful consideration of the STD on this project.
Scott Peterson	San Diego Gas & Electric	3	Negative	1. The term "NERC System Operator Certification Program" needs to be defined. 2. In R2, "Transmission Operator reliability-related tasks" need to be clearly defined and/or identified. Additionally, the following insertions (in bold red) need to be made to the text: ". . . in the areas listed in R2.1 by obtaining and maintaining one of the following valid NERC certificates listed in R2.2". 3. Measures: How about emergency exceptions? The previous version of this standard, PER-003-0, allows for emergency exceptions in M1.2 during control center transfers. 4. Violation Severity Levels - there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.
James R. Keller	Wisconsin Electric Power Marketing	3	Affirmative	The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1.
Michael Ibold	Xcel Energy, Inc.	3	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, thought the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
David Frank Ronk	Consumers Energy	4	Negative	We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.
Joseph G. DePoorter	Madison Gas and Electric	4	Negative	I agree with the Requirements within the proposed Standard but do not agree with the expansion of the foot note concerning non NERC Certified System Operators. If

Voter	Entity	Segment	Vote	Comment
	Co.			the foot note must be maintained, recommend that it read: "Non-NERC certified personnel in-training performing any reliability related tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related task." Rational: Non NERC certified personnel will never have the reliability related responsibilities as a NERC Certified System Operator; there are too many training responsibilities that must be accomplished, even for a NERC Certified System Operator. The SDT proposed foot note may be interpreted in a way that a NERC Certified System Operator must always be at a "station" and could never leave the "station" for any reason.
Henry E. LuBean	Public Utility District No. 1 of Douglas County	4	Negative	Competency requirements and measures are not stated properly and are too difficult to measure adequately. Competency should be determined based on whether certification has been obtained or not in this industry. Each entity must determine whether a person is qualified to work as a system operator and this should not be based on whether competency is declared by some number of hours obtained in a classroom; it would help in determining full qualification but not to prevent it; certification can help in determining qualification but an undefined competency rule just compounds the issue unnecessarily. As for VSLs, being certified (and competent?) or not may or may not directly affect the BPS (BES) and therefore should not be at the highest level; medium or lower would be better. This issue is not as black or white as is a SOL violation and shouldn't be held to the same level of violation or penalty.
Anthony Jankowski	Wisconsin Energy Corp.	4	Affirmative	"The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1."
Daniel Mason	City and County of San Francisco	5	Negative	As reflected in many pre-ballot comments, there is no need for competencies to be included in this standard. Registered Entities have no authority over the areas of competency demonstrated by obtaining and maintaining a valid NERC System Operator certificate. This standard should only require the applicable Registered Entity to staff its Real-time operating positions which are responsible for the control of the Bulk Electric System, with System Operators who possess the appropriate current and valid NERC System Operator certificate. Including competencies in PRC-003-1 only creates potential interpretation issues, added cost of compliance, with no obvious reliability benefit.
Stephanie Huffman	Cleco Power	5	Affirmative	None
James B Lewis	Consumers Energy	5	Negative	We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a

Voter	Entity	Segment	Vote	Comment
				qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.
Christopher Schneider	MidAmerican Energy Co.	5	Negative	MidAmerican believes that if wording about "positions performing Transmission Operator reliability-related tasks" cannot be included or the PER-003 standard effective date must be extended out beyond the current PER-005 date to avoid incorrectly advancing NERC compliance on reliability related tasks already identified in a FERC Order.
Richard Kinas	Orlando Utilities Commission	5	Affirmative	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Linda Horn	Wisconsin Electric Power Co.	5	Affirmative	The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1.
Robert Hirschak	Cleco Power LLC	6	Affirmative	None
Daryn Barker	Louisville Gas and Electric Co.	6	Negative	Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."
Joseph O'Brien	Northern Indiana Public Service Co.	6	Affirmative	Concerns of previous ballot have been addressed by SDT

Voter	Entity	Segment	Vote	Comment
Alan R. Johnson	NRG Energy, Inc.	6	Negative	The standard fails to mention anything about restricting support personnel from being able to perform certain actions, such as control. EMS system support personnel can always use tools to manipulate database parameters, allowing themselves control ability. They all have database tools that are needed to manipulate systems in times of emergency support. The standard should address this.
Dennis Sismaet	Seattle City Light	6	Affirmative	Appropriate to change the language to indicate NERC certification as the requirement.
David F. Lemmons	Xcel Energy, Inc.	6	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
James A Maenner		8	Affirmative	Listing Areas of Competency and Certificates as requirements in the standard does not add much value. Necessary competencies and applicable certificates are described in the NERC System Operator Certification Program manual and are established through the ERO not by individuals required to be certified. In addition, including Areas of Competency and Certificates in the standard may require revisions to the standard when updated in the program.

END OF REPORT

Exhibit D

Development Record of the Proposed PER-003-1 Reliability Standard and the associated Implementation Plan

Project 2007-04 Certifying System Operators

Related Files

Status:

Approved by the Board of Trustees on February 17, 2011.

Purpose/Industry Need:


This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

The standard will be revised to address the directives from FERC Order 693 and industry comments from Version 0.

The standard will also be revised to conform to the latest version of the Reliability Standards Development Procedure and the ERO Sanctions Guidelines. The standard drafting team will apply the Reliability Standard Review Guidelines when modifying the standard.

Draft	Action	Dates	Results	Consideration of Comments
Draft 3 PER-003-1 Clean(38) Redline to last posting(39) Implementation Plan Clean(37) Supporting Materials PER-003-0(36)	Recirculation Ballot Vote>> Info(40)	12/02/10 - 12/13/10 (closed)	Full Record(41)	Consideration of Comments(42)
Draft 2 PER-003-1 Clean(25) Redline to first posting(26) Implementation	Initial Ballot & Non-Binding VRF/VSL Poll Vote>> Info(31)	09/14/10 - 09/24/10	Summary(34) Full Record(33) Non-Binding Poll Results(32)	Non-Binding Poll Consideration of Comments(35)

<p>Plan Clean(23) Redline to first posting(24)</p> <p>Supporting Materials: Comment Form (Word)(22)</p>	<p>Ballot Pool and Pre-ballot Window (with Comment Period)</p> <p>Submit Comments>></p> <p>Join>> Info(27)</p>	<p>Ballot Pool 08/10/10 - 09/09/10</p> <p>Comment Period 08/10/10 - 09/24/10</p>	<p>Comments Received(28)</p>	<p>Initial Ballot Consideration of Comments(30)</p> <p>Consideration Of comments on Second Draft(29)</p>
<p>Draft 1 of Standard</p> <p>PER-003-1(18)</p> <p>Implementation Plan(17)</p> <p>Supporting Materials: Comment Form (Word)(16) PER-003-0 for Reference(15)</p>	<p>Comment Period</p> <p>Info(19)</p> <p>Submit Comments>></p>	<p>10/21/09 - 11/20/09 (closed)</p>	<p>Comments Received(20)</p>	<p>Consideration of Comments(21)</p>
<p>Nominations for System Operator Certification Standard Drafting Team</p>	<p>Nomination Period</p> <p>Info(14)</p> <p>Submit Nomination</p>	<p>04/24/08 – 05/07/08 (closed)</p>		
<p>Draft SAR Version 2</p> <p>Clean(8) Redline(9) to last posting</p>	<p>Comment Period</p> <p>Info(11)</p> <p>Submit Comments(10)</p>	<p>01/02/08 – 01/31/08 (closed)</p>	<p>Comments Received(12)</p>	<p>Consideration of Comments(13)</p>
<p>SAR for Certifying System Operators</p> <p>Draft SAR Version 1(3)</p>	<p>Comment Period</p> <p>Info(5)</p> <p>Submit Comments(4)</p>	<p>07/17/07 – 08/15/07 (closed)</p>	<p>Comments Received(6)</p>	<p>Consideration of Comments(7)</p>

SAR Drafting Team Nominations for Certifying System Operators	Nomination Period Info(2) Submit Nomination(1)	07/17/07 – 07/30/07 (closed)		
To download a file click on the file using your right mouse button, then save it to your computer in a directory of your choice.				
Documents in the PDF format require use of the Adobe Reader® software. Free Adobe Reader® software allows anyone view and print Adobe Portable Document Format (PDF) files. For more information download the Adobe Reader User Guide .				

All comments should be forwarded to sarcomm@nerc.net.



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Nomination Form for Certifying System Operators SAR Drafting Team (Project 2007-04)

Please return this form to sarcomm@nerc.net by **July 30, 2007** with the words "**SO Certification SAR DT**" in the subject line. If you have questions please contact Linda Clarke at linclrke@msn.com or by telephone at 610-310-7210.

Name:	
Organization:	
Address:	
Office Telephone:	
E-mail:	
<p>Please briefly describe your experience and qualifications to serve on the Certifying System Operators SAR Drafting Team. Prefer experience in managing real-time system operators working for Reliability Coordinators, Transmission Operators, Balancing Authorities and Transmission Owners. Previous experience working on or applying NERC or IEEE standards is beneficial, but not a requirement.</p>	
<p>I represent the following NERC Reliability Region(s) (check all that apply):</p> <p><input type="checkbox"/> ERCOT</p> <p><input type="checkbox"/> FRCC</p> <p><input type="checkbox"/> MRO</p> <p><input type="checkbox"/> NPCC</p> <p><input type="checkbox"/> RFC</p> <p><input type="checkbox"/> SERC</p> <p><input type="checkbox"/> SPP</p> <p><input type="checkbox"/> WECC</p> <p><input type="checkbox"/> NA – Not Applicable</p>	<p>I represent the following Industry Segment(s) (check all that apply):</p> <p><input type="checkbox"/> 1 – Transmission Owners</p> <p><input type="checkbox"/> 2 – RTOs, ISOs</p> <p><input type="checkbox"/> 3 – Load-serving Entities</p> <p><input type="checkbox"/> 4 – Transmission-dependent Utilities</p> <p><input type="checkbox"/> 5 – Electric Generators</p> <p><input type="checkbox"/> 6 – Electricity Brokers, Aggregators, and Marketers</p> <p><input type="checkbox"/> 7 – Large Electricity End Users</p> <p><input type="checkbox"/> 8 – Small Electricity End Users</p> <p><input type="checkbox"/> 9 – Federal, State, and Provincial Regulatory or other Government Entities</p> <p><input type="checkbox"/> 10 – Regional Reliability Organizations and Regional Entities</p>

Nomination Form for Certifying System Operators SAR Drafting Team (Project 2007-04)

Which of the following Function(s)¹ do you have expertise or responsibilities:	
<input type="checkbox"/> Balancing Authority	<input type="checkbox"/> Planning Coordinator
<input type="checkbox"/> Compliance Monitor	<input type="checkbox"/> Transmission Operator
<input type="checkbox"/> Distribution Provider	<input type="checkbox"/> Transmission Owner
<input type="checkbox"/> Generator Operator	<input type="checkbox"/> Transmission Planner
<input type="checkbox"/> Generator Owner	<input type="checkbox"/> Transmission Service Provider
<input type="checkbox"/> Interchange Authority	<input type="checkbox"/> Purchasing-selling Entity
<input type="checkbox"/> Load-serving Entity	<input type="checkbox"/> Resource Planner
<input type="checkbox"/> Market Operator	<input type="checkbox"/> Reliability Coordinator
Provide the names and contact information for two references who could attest to your technical qualifications and your ability to work well in a group.	
Name:	Office
	Telephone:
Organization:	E-mail:
Name:	Office
	Telephone:
Organization:	E-mail:

¹ These functions are defined in the Functional Model, which is downloadable from the following Web site:
<http://www.nerc.com/~filez/functionalmodel.html>

July 17, 2007

TO: REGISTERED BALLOT BODY

Ladies and Gentlemen:

Announcement: Nomination Periods Open for Five New Drafting Teams

The Standards Committee announces the following standards actions:

Project 2007-04 — Certifying System Operators SAR Drafting Team (July 17–30, 2007)

The Standards Committee is seeking industry experts to serve on the [Certifying System Operators](#) SAR Drafting Team. The drafting team will work on the modification of the following standard:

PER-003 — Operating Personnel Credentials

If you are interested in serving on this SAR drafting team, please complete this [nomination form](#) and return it to sarcomm@nerc.net by July 30, 2007 with “SO Certification SAR DT” in the subject line. For questions, please contact Linda Clarke at 610-310-7210 or linclrke@msn.com.

Project 2007-05 — Balancing Authority Controls SAR Drafting Team (July 17–30, 2007)

The Standards Committee is seeking industry experts to serve on the [Balancing Authority Controls](#) SAR Drafting Team. The drafting team will work on modifications to the following standards:

- BAL-002 — Disturbance Control Performance
- BAL-004 — Time Error Correction
- BAL-005 — Automatic Generation Control
- BAL-006 — Inadvertent Interchange

If you are interested in serving on this SAR drafting team, please complete this [nomination form](#) and return it to sarcomm@nerc.net by July 30, 2007 with “BA Controls SAR DT” in the subject line. For questions, please contact Linda Clarke at 610-310-7210 or linclrke@msn.com.

Project 2007-09 — Generator Verification Standard Drafting Team (July 17–30, 2007)

The Standards Committee is seeking industry experts to serve on the [Generator Verification Standard](#) Drafting Team. If you are interested in serving on this team, please complete this [nomination form](#) and return it to sarcomm@nerc.net with “Gen Verification SDT” in the subject line by July 30, 2007. For questions, please contact David Taylor at 609-651-5089 or david.taylor@nerc.net.

The drafting team will work on finalizing the following Phase III & IV standards:

REGISTERED BALLOT BODY

July 17, 2007

Page Two

- PRC-019 — Coordination of Generator Voltage Regulator Controls with Unit Capabilities and Protection
- PRC-024 — Generator Performance during Frequency and Voltage Excursions
- MOD-026 — Verification of Models and Data for Generator Excitation System Functions
- MOD-027 — Verification of Generator Unit Frequency Response

The drafting team will also work on revising two existing standards that were not approved by the FERC because of their “fill-in-the-blank” elements:

- MOD-024 — Verification of Generator Gross and Net Real Power Capability
- MOD-025 — Verification of Generator Gross and Net Reactive Power Capability

Project 2007-12 — Frequency Response Standard Drafting Team (July 17–30, 2007)

The Standards Committee is seeking industry experts to serve on the [Frequency Response Standard Drafting Team](#). The drafting team will work to develop a standard that requires entities to provide data so that Frequency Response in each of the Interconnections can be modeled, and the reasons for the decline in Frequency Response can be identified.

If you are interested in serving on this standard drafting team, please complete this [nomination form](#) and return it to sarcomm@nerc.net by July 30, 2007 with “FR SDT” in the subject line. For questions, please contact Linda Clarke at 610-310-7210 or linclrke@msn.com.

Project 2007-23 — Violation Severity Levels Drafting Team (July 17–30, 2007)

The Standards Committee is seeking industry experts to serve on the [Violation Severity Levels SAR Drafting Team](#). The drafting team will work to achieve consensus on a set of criteria for assigning Violation Severity Levels, and will work (with other existing drafting teams) to replace “Levels of Non-compliance” with “Violation Severity Levels” in the 83 standards approved by the FERC. FERC directed NERC to replace “Levels of Non-compliance” with “Violation Severity Levels” so that the ERO’s [Sanctions Guidelines](#) can be used as intended.

If you are interested in serving on this standard drafting team, please complete this [nomination form](#) and return it to sarcomm@nerc.net by July 30, 2007 with “VSL DT” in the subject line. For questions please contact Al Calafiore at 678-524-1188 or al.calafiore@nerc.net or Stephen Crutchfield at 609-651-9455 or stephen.crutchfield@nerc.net.

Standards Development Process

The [Reliability Standards Development Procedure](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate. If you have any questions, please contact me at 813-468-5998 or maureen.long@nerc.net.

Sincerely,

Maureen E. Long

cc: Registered Ballot Body Registered Users
Standards Mailing List
NERC Roster

Standard Authorization Request Form

Title of Proposed Standard	Certifying System Operators (Project 2007-04)
Request Date	July 07, 2007

SAR Requestor Information	SAR Type (<i>Check a box for each one that applies.</i>)
Name David Carlson	<input type="checkbox"/> New Standard
Primary Contact David Carlson	<input checked="" type="checkbox"/> Revision to existing Standard: PER-003-0 Operating Personnel Credentials
Telephone (630) 691-4480 Fax (630) 691-4697	<input type="checkbox"/> Withdrawal of existing Standard
E-mail david.carlson@exeloncorp.com	<input type="checkbox"/> Urgent Action

Purpose (Describe the purpose of the standard — what the standard will achieve in support of reliability.)

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure they are enforceable as mandatory reliability standards with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standards.

This SAR is intended to address the following:

- FERC Final Rule "Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693" on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Standards Authorization Request Form

Industry Need (Provide a detailed statement justifying the need for the proposed standard, along with any supporting documentation.)

PER-003 is a Version 0 standard. As the electric reliability organization begins enforcing compliance with reliability standards under Section 215 of the Federal Power Act in the United States and applicable statutes and regulations in Canada, the industry needs a set of clear, measurable, and enforceable reliability standards. The Version 0 standards, while a good foundation, were translated from historical operating and planning policies and guides that were appropriate in an era of voluntary compliance. The Version 0 standards and recent updates were put in place as a temporary starting point to stand up the electric reliability organization and begin enforcement of mandatory standards. However, it is important to update the standards in a timely manner, incorporating improvements to make the standards more suitable for enforcement and to capture prior recommendations that were deferred during the Version 0 translation.

Brief Description

This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

The standard will be revised to address the directives from FERC Order 693 and industry comments from Version 0.

The standard will also be revised to conform to the latest version of the Reliability Standards Development Procedure and the ERO Sanctions Guidelines. The standard drafting team will apply the Reliability Standard Review Guidelines when modifying the standard. (Attachment 1)

Detailed Description (Describe the proposed standard in sufficient detail to clearly define the scope in a manner that can be easily understood by others.)

This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

During 2006, the standards staff received a request to develop an interpretation to clarify which operating personnel need to be NERC certified, and the interpretation did not meet stakeholder consensus. The standard needs to be modified to clarify which system operators need to be NERC certified. The existing NERC standard only requires certification of the system operators who work for the entities who register as the Reliability Coordinator, Transmission Operator and Balancing Authority. This means that some system operators who monitor and control bulk power system facilities are not currently required to obtain a NERC certification credential. The certification requirements for local transmission control center operators and local generation control center operators need to be identified and then the standard needs to be modified to address their certification. The existing NERC Certification credentials are designed to test the knowledge and abilities of Reliability Coordinators, Balancing Authority, and Transmission Operator real-time operations personnel who are directly responsible for following NERC Standards. To fully address the needs of certifying the Local Control Center operators that are under the authority of an ISO/RTO, new certification credentials will need to be developed to address the specific job requirements of those positions. Specifically, the following directives and comments will be addressed:

FERC Order 693

- Specify minimum competencies that must be demonstrated to become and remain a certified operator
- Identify minimum competencies operating personnel must demonstrate to be certified
- Consider grandfathering certification requirements for transmission operator personnel as part of the standards development process

VO Industry Comments

- Clarification from the drafting team on the intended meaning of "current" in the Measures.
- R1 — Suggestion to be incorporated into the next version (version 1): The operating position is to be filled by a person holding the appropriate level certification. For Example; a person that is acting as the Reliability Coordinator will need to hold a Reliability Coordinator Operator Certification and a person acting as a Transmission Operator would need to hold a Transmission Operator Certification.
- R1 — Policy 8C Standard 1 is satisfactorily represented by Standard 032 Requirement 1. However, there was a one word change from "both" to "either", that can change the meaning of the statement, depending upon interpretation. In the interest of keeping the continuity between Policy 8C and Standard 32, the wording should be kept consistent and any changes be made through the normal process as part of version 1.
- R1 — Exelon Corporation suggests that Version 1 of this Standard be initiated to address the requirement to have NERC Certified Operators that perform functions that are formally delegated similar to the requirement of Policy 9B Req. 3.
- Measure could be that one has documentation of Certification of all personnel.
- M1.a indicates that "Trainees may perform critical tasks only under the direct, continuous supervision and observation.... "What constitutes a "critical task?" What duties performed in a typical control center are not "critical?" Inclusion of "critical tasks" is most likely a reference to the Critical Task List that has been established to guide operators in determining which of the four certification credentials (BIO, TO, BIT, RO) they are required to attain.
- The OTS suggests the reference to "critical tasks" be removed to prevent possible interpretation that the uncertified operator can perform routine tasks but not "critical" tasks. Or, change it to reference the Critical Task List of the credential and include it in the Standard.
- Compliance Monitoring Process — It isn't clear what is meant by "previous calendar year staffing plan." A "staffing plan" sounds like a plan for staffing — if so, what does that have to do with filling operating positions with certified operators? A simple determination of which positions require certified operators should be sufficient. Need to modify to be clear.

Standards Authorization Request Form

Reliability Functions

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
<input checked="" type="checkbox"/>	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
<input checked="" type="checkbox"/>	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input checked="" type="checkbox"/>	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input type="checkbox"/>	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input type="checkbox"/>	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input checked="" type="checkbox"/>	Transmission Owner	Owns and maintains transmission facilities.
<input checked="" type="checkbox"/>	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input type="checkbox"/>	Distribution Provider	Delivers electrical energy to the End-use customer.
<input checked="" type="checkbox"/>	Generator Owner	Owns and maintains generation facilities.
<input checked="" type="checkbox"/>	Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/>	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/>	Market Operator	Interface point for reliability functions with commercial functions.
<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Standards Authorization Request Form

Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
<input type="checkbox"/>	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk electric systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input checked="" type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all the following Market Interface Principles? <i>(Select "yes" or "no" from the drop-down box.)</i>	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. An Organization Standard shall not give any market participant an unfair competitive advantage. Yes	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	
5. An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes	

Standards Authorization Request Form

Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Differences

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
SERC	
RFC	
SPP	
WECC	

Attachment 1 — Standard Review Guidelines

Applicability

Does this reliability standard clearly identify the functional classes of entities responsible for complying with the reliability standard, with any specific additions or exceptions noted? Where multiple functional classes are identified is there a clear line of responsibility for each requirement identifying the functional class and entity to be held accountable for compliance? Does the requirement allow overlapping responsibilities between Registered Entities possibly creating confusion for who is ultimately accountable for compliance?

Does this reliability standard identify the geographic applicability of the standard, such as the entire North American bulk power system, an interconnection, or within a regional entity area? If no geographic limitations are identified, the default is that the standard applies throughout North America.

Does this reliability standard identify any limitations on the applicability of the standard based on electric facility characteristics, such as generators with a nameplate rating of 20 MW or greater, or transmission facilities energized at 200 kV or greater or some other criteria? If no functional entity limitations are identified, the default is that the standard applies to all identified functional entities.

Purpose

Does this reliability standard have a clear statement of purpose that describes how the standard contributes to the reliability of the bulk power system? Each purpose statement should include a value statement.

Performance Requirements

Does this reliability standard state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest?

Does each requirement identify who shall do what under what conditions and to what outcome?

Measurability

Is each performance requirement stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by that requirement?

Does each performance requirement have one or more associated measures used to objectively evaluate compliance with the requirement?

If performance results can be practically measured quantitatively, are metrics provided within the requirement to indicate satisfactory performance?

Technical Basis in Engineering and Operations

Is this reliability standard based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that particular field?

Completeness

Standards Authorization Request Form

Is this reliability standard complete and self-contained? Does the standard depend on external information to determine the required level of performance?

Consequences for Noncompliance

In combination with guidelines for penalties and sanctions, as well as other ERO and regional entity compliance documents, are the consequences of violating a standard clearly known to the responsible entities?

Clear Language

Is the reliability standard stated using clear and unambiguous language? Can responsible entities, using reasonable judgment and in keeping with good utility practices, arrive at a consistent interpretation of the required performance?

Practicality

Does this reliability standard establish requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter?

Capability Requirements versus Performance Requirements

In general, requirements for entities to have ‘capabilities’ (this would include facilities for communication, agreements with other entities, etc.) should be located in the standards for certification. The certification requirements should indicate that entities have a responsibility to ‘maintain’ their capabilities.

Consistent Terminology

To the extent possible, does this reliability standard use a set of standard terms and definitions that are approved through the NERC reliability standards development process?

If the standard uses terms that are included in the NERC Glossary of Terms Used in Reliability Standards, then the term must be capitalized when it is used in the standard. New terms should not be added unless they have a ‘unique’ definition when used in a NERC reliability standard. Common terms that could be found in a college dictionary should not be defined and added to the NERC Glossary.

Are the verbs on the ‘verb list’ from the DT Guidelines? If not – do new verbs need to be added to the guidelines or could you use one of the verbs from the verb list?

Violation Risk Factors (Risk Factor)

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. A requirement that is administrative in nature;

or a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. A planning requirement that is administrative in nature.

Time Horizon

The drafting team should also indicate the time horizon available for mitigating a violation to the requirement using the following definitions:

- **Long-term Planning** — a planning horizon of one year or longer.
- **Operations Planning** — operating and resource plans from day-ahead up to and including seasonal.
- **Same-day Operations** — routine actions required within the timeframe of a day, but not real-time.
- **Real-time Operations** — actions required within one hour or less to preserve the reliability of the bulk electric system.
- **Operations Assessment** — follow-up evaluations and reporting of real time operations.

Violation Severity Levels

The drafting team should indicate a set of violation severity levels that can be applied for the requirements within a standard. ('Violation severity levels' replace existing 'levels of non-compliance.')

The violation severity levels must be applied for each requirement and may be combined to cover multiple requirements, as long as it is clear which requirements are included and that all requirements are included.

The violation severity levels should be based on the following definitions:

- **Lower: mostly compliant with minor exceptions** — The responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more minor details. Equivalent score: more than 95% but less than 100% compliant.
- **Moderate: mostly compliant with significant exceptions** — The responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more significant elements. Equivalent score: more than 85% but less than or equal to 95% compliant.
- **High: marginal performance or results** — The responsible entity has only partially achieved the reliability objective of the requirement and is missing one or more significant elements. Equivalent score: more than 70% but less than or equal to 85% compliant.
- **Severe: poor performance or results** — The responsible entity has failed to meet the reliability objective of the requirement. Equivalent score: 70% or less compliant.

Compliance Monitor

Replace, ‘Regional Reliability Organization’ with ‘Regional Entity’

Compliance Monitoring Period and Reset Time Frame

FERC has determined that the performance reset timeframe cannot be longer than a month.

Fill-in-the-blank Requirements

Do not include any ‘fill-in-the-blank’ requirements. These are requirements that assign one entity responsibility for developing some performance measures without requiring that the performance measures be included in the body of a standard – then require another entity to comply with those requirements.

Every reliability objective can be met, at least at a threshold level, by a North American standard. If we need regions to develop regional standards, such as in under-frequency load shedding, we can always write a uniform North American standard for the applicable functional entities as a means of encouraging development of the regional standards.

Requirements for Regional Reliability Organization

Do not write any requirements for the Regional Reliability Organization. Any requirements currently assigned to the RRO should be re-assigned to the applicable functional entity.

Effective Dates

Must be 1st day of 1st quarter after entities are expected to be compliant – must include time to file with regulatory authorities and provide notice to responsible entities of the obligation to comply. If the standard is to be actively monitored, time for the Compliance Monitoring and Enforcement Program to develop reporting instructions and modify the Compliance Data Management System(s) both at NERC and Regional Entities must be provided in the implementation plan. Must be linked to the applicable regulatory authority approvals.

Associated Documents

If there are standards that are referenced within a standard, list the full name and number of the standard under the section called, ‘Associated Documents’.

Functional Model Version 3

Review the requirements against the latest descriptions of the responsibilities and tasks assigned to functional entities as provided in pages 13 through 53 of the draft Functional Model Version 3.

**Comment Form for First Draft of SAR for Certifying System Operators
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR for Certifying System Operators (Project 2007-04). Comments must be submitted by **August 15, 2007**. Please submit the completed form by e-mail to sarcomm@nerc.net with the words "SO Certification SAR" in the subject line. If you have questions please contact Linda Clarke at linclrke@msn.com or by telephone at 610-310-7210.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

This SAR is intended to address the following:

- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Please review the SAR, provide your comments on this form, and then e-mail the form to sarcomm@nerc.net by **August 15, 2007** with the words, “SO Certification SAR” in the subject line.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?

Yes

No

Comments:

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments:

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments:

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments:

July 17, 2007

TO: REGISTERED BALLOT BODY

Ladies and Gentlemen:

Announcement: Comment Periods Open

The Standards Committee announces the following standards actions:

SAR for Certifying System Operators (Project 2007-04) Posted for 30-day Comment Period July 17–August 15, 2007

This SAR for [Project 2007-04 — Certifying System Operators](#) proposes modifications to address the directives from the FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” relative to PER-003 — Operating Personnel Credentials and to incorporate the necessary content, structure, and language to bring the standard into conformance with the Reliability Standards Development Procedure and the ERO [Sanctions Guidelines](#).

Please use this [comment form](#) to submit comments on this SAR.

SAR for Violation Severity Levels (Project 2007-23) Posted for 30-day Comment Period July 17–August 15, 2007

This SAR for [Project 2007-23 — Violation Severity Levels](#) proposes defining a set of criteria for assigning Violation Severity Levels or VSLs, and replacing the existing “Levels of Non-compliance” (in the 83 standards approved by the FERC) with “VSLs.” The FERC directed NERC to replace “Levels of Non-compliance” with “Violation Severity Levels” by March 1, 2008.

Levels of non-compliance assess the reliability-related risk of violating a requirement, and are not used in the ERO’s Sanctions Guidelines. The Sanctions Guidelines use “Violation Risk Factors” to assess the reliability-related risk of violating a requirement and use “Violation Severity Levels” to identify how badly a requirement was violated — VSLs do not assess “importance” or “reliability-related risk” of violating a requirement.

Please use this [comment form](#) to submit comments on this SAR.

Standards Development Process

The [Reliability Standards Development Procedure](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate. If you have any questions, please contact me at 813-468-5998 or maureen.long@nerc.net.

Sincerely,

Maureen E. Long

cc: Registered Ballot Body Registered Users
Standards Mailing List

REGISTERED BALLOT BODY

July 17, 2007

Page Two

NERC Roster

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	William J. Smith	
Organization:	Allegheny Power	
Telephone:	(724) 838-6552	
E-mail:	wsmith1@alleghenypower.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
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Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
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- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Please review the SAR, provide your comments on this form, and then e-mail the form to sarcomm@nerc.net by **August 15, 2007** with the words, “SO Certification SAR” in the subject line.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: Allegheny Power agrees with scope of the proposed SAR. Below are what we feel are the the most important scoping issues: 1) Specify the appropriate levels of certification for all applicable entities; 2) The issue of "Critical Tasks" must be addressed by the Standard Drafting Team. The "Critical Tasks" must be defined as specifically as possible; 3) The phrase "direct, continuous supervision, and obsevation" must be defined in clear language.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: This standard should apply to the Transmission Operator (Local Control Center), Generator Owner (Market Operations Center) the Generator Operator as well as the Transmission Operator, Reliability Coordinator and the Balancing Authority.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments: The overlapping certification requirements between NERC and ISOs/RTOs should be addressed.

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments: None

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

Comments: None

**Comment Form for First Draft of SAR for Certifying System Operators
 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Jeff Hackman	
Organization:	Ameren	
Telephone:	314-554-2839	
E-mail:	jhackman@ameren.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 – Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 – Regional Reliability Organizations and Regional Entities

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

This SAR is intended to address the following:

- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
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You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: New certification credentials should not be established for LCC operators. To the extent they perform BA or TO duties under authority of an ISO/RTO, they should have the same credentials so that they can understand and appreciate their actions in context of the greater system need.

Additionally, to the extent that they have a broader understanding they will be able to offer additional pertinent information to the ISO/RTO operator which may affect his/her decision but was more obvious to the LCC operator. Additionally, the balckout and subsequent events have shaped the new standards and "experience" in the case of "grandfathered" operators is a poor substitute for certification in today's operating climate. Grandfathering should not be part of certificaiton.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments:

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

**Comment Form for First Draft of SAR for Certifying System Operators
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- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Michael Scott	
Organization:	APS Power Operations	
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E-mail:	michael.scott@aps.com	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 – Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 – Large Electricity End Users
<input checked="" type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 – Federal, State, Provincial Regulatory or other Government Entities
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1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?

Yes

No

Comments:

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments:

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments:

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: On the subject of PER-003-0, B., R1, we agree with the Industry Comment listed that personnel who MEET BOTH requirements R1.1 AND R1.2 shall be NERC certified, not MEET EITHER.

On the subject of PER-003-0, M1, we believe that a qualified individual providing technical direction to a trainee will observe the work in progress to the extent necessary to verify the performance is proper. Providing direction does not imply continuous observation, but does imply control of the performance and observation appropriate to the difficulty and sensitivity of the work. We do not believe that value will be added by creating a requirement to conduct a comprehensive cataloging of task criticality in order to determine the proper amount of work supervision for the trainee. These decisions can be made most effectively by the qualified operator based on the trainee's progress to date, the existing circumstances, and their knowledge of the task at hand.

On the subject of the compliance monitoring process, we agree that the wording "staffing plan" would be more clearly stated as "staffing schedule".

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Jason Shaver	
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E-mail:	jshaver@atcllc.com	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments: ATC agrees that there is a reliability related need for NERC to expand the certification requirements for "operating positions" that have primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System. The expansion must include local transmission control center "operating positions" that meet requirement 1.1.

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments: The SAR needs to be expanded to include NERC Standards PER-001 and PER-002. Doing so is the only way to insure the development of a comprehensive set of personnel standards. To limit the effort to only one standard ignores the foreseeable issues.

Will ongoing training be required for the applicable individuals?

Will applicable individuals be required to protect the BES as established in PER-001?

If the answer is no to both of these questions then what will certification achieve?

All control center system operators that are responsible for implementing NERC Requirements either independently or under the directions of the TOP should be certified. In addition those individuals should be required to participate in ongoing training activities.

3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?

Yes

No

Comments: The addition of other entities to have certified "operating positions" is only one piece of the bigger puzzle. NERC must address the group of personnel standards to insure a set of comprehensive reliability standards. (PER-003, PER-002 and PER-001)

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

If other NERC standards are not going to be addressed by this effort then NERC should limit this SAR to only those entities that perform real-time TOP, BA and RC Requirements using non-certified personal.

What is the reason to stop at the certification requirement? (PER-003)

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments: No

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments: No

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: Item 1:

Using existing NERC rules some Transmission Operators (TOP) have delegated critical real-time operating control to local transmission control centers while at the same time avoiding certification requirements. (PER-003) Because of this situation NERC should review existing rules surrounding the delegation of Requirements and determine if modifications are needed. That effort may result in achieving the same goal as this SAR.

ATC believes that a TOP should not be able to delegate Requirements that address real-time operations to non-certified system operators.

Item 2:

ATC is concerned with the use and weight placed on comments submitted during the Version 0 effort in the developed and justification if this SAR. The standard drafting team should place greater weight and consideration on comments submitted during this effort.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Tony Kroskey	
Organization:	Brazos Electric Power Cooperative, Inc.	
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NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: Need to clarify some requirements. For example switching operations under the supervision of certified supervisors.

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The Operating Personnel certification is critical for those with the decision making authority over Bulk Power System facilities ie RC, BA, and TOP. The competencies required for the local control center operators is better addressed by training. Extending certification requirements beyond the RC, BA and TOP would go beyond the FERC directive and should not be required.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: Applicability to local control center operators should not required for reasons stated above.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Brad Calhoun	
Organization:	CenterPoint Energy	
Telephone:	713-207-2744	
E-mail:	brad.calhoun@CenterPointEnergy.com	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: In FERC Order No. 693 paragraph 1407, the Commission states that it "is persuaded not to require generator operators and transmission operators at local control centers to be NERC Certified at this time"; however, this SAR proposes to certify local control center operators. It appears that the SAR seeks to expand the FERC directive in paragraph 1409 of Order No. 693 beyond what FERC intends. There is no benefit to including local control center operators in the NERC certification process, which is more applicable to an entity with the responsibility "for operating a reliable Bulk Electric System." In addition, including local control center operators in PER-003 might impose an unnecessary financial burden without benefit to reliability.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: CenterPoint Energy disagrees with the inclusion of Transmission Owners and Generator Owners as local control center operators as discussed in our response to Question 2.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Alan Gale	
Organization:	City of Tallahassee (TAL)	
Telephone:	850-891-3025	
E-mail:	galea@talgov.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input checked="" type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The standard, as it exists today, provides adequate reliability to the Bulk Electric System. The changes are needed from an administrative standpoint to conform to the new format and processes directed by FERC.

Clarity is needed to address the Interpretation Request and the Version 0 comments.

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The term "scope" is not used in the SAR. Is this supposed to be the "Purpose", "Industry Need", Brief Description", "Detailed Description", or "Background Information"? The Detailed Description indicates that this SAR will address which "system operators" needs to be certified. I am okay with that "scope", but am not okay if it delves more deeply into who should be NERC certified.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: Based on the indication that additional system operators may need to be NERC certified as a result of this SAR, applicability should include the Transmission Service Provider, Distribution Provider and the Load-Serving Entity. To not include them from the beginning will "short change" them if the discussions feared in 2 above does take place. These entities do control shedding load, whether as directed by the Reliability Coordinator or by their Transmission Service Provider and should be invited to the party at the beginning.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments: None

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments: None

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments: None

**Comment Form for First Draft of SAR for Certifying System Operators
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR for Certifying System Operators (Project 2007-04). Comments must be submitted by **August 15, 2007**. Please submit the completed form by e-mail to sarcomm@nerc.net with the words "SO Certification SAR" in the subject line. If you have questions please contact Linda Clarke at linclrke@msn.com or by telephone at 610-310-7210.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Wayne Mitchell	
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NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 – Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 – Regional Reliability Organizations and Regional Entities

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

This SAR is intended to address the following:

- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Please review the SAR, provide your comments on this form, and then e-mail the form to sarcomm@nerc.net by **August 15, 2007** with the words, “SO Certification SAR” in the subject line.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: I'm not sure that all TO need to be NERC Certified. In our case we have sub-transmission dispatches that monitor and address switching at the local level and receive operational directions from our Transmission Operators. We recommend that certification requirements for local control centers not be developed.

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: Not sure that new certification requirements need to be added for all Transmission Dispatchers, I believe NERC has addressed certification and we need to leave it up to the Transmission Owners to establish what level of TO's need to be certified.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments:

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Organization:		
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- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: Based on the scope of this SAR to determine if entities other than BA, TO and RC should be subject to some type of certification then all functions may be applicable, especially LSE, DP, TSP.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments:

We agree that new certification credentials may need to be developed based on local control center operations, or at least the requirements clarified in the standard with respect to these operators; especially to clarify the RTO/ISO and sub entity responsibilities.

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

The proposal to consider grandfathering certification requirements for transmission operator personnel should be used only as a short transition period to allow proper testing/training/certification of all identified personnel.

Please also consider the following aspects of the standard:

R1 "Each...shall staff all operating positions..." The term "operating positions" needs better definition. For example, does this include technical/engineering personnel on shift that run short term and real time studies?

M1, 1.1, 1.2 are actually "Requirements" and should be moved into that section.

M1.1 "Critical tasks" needs definition, even if only to clarify that they are defined by the entity.

M1.2 is out of place here. Where did the 4 hour limit come from? Should the requirement really be stated in EOP-009 Loss of Control Center Functionality as the time required in which to establish control at a site with NERC certified operators?

D1 "...Staffing schedules and certification numbers will be compared to ensure that positions that require NERC certified operating personnel were covered as required. Certification numbers from the Transmission Operator, Balancing Authority, and Reliability Coordinator will be compared with NERC records..." is actually a Measure and should be moved into that section. The statement regarding exception reporting is no longer needed with the compliance programs that each region has established that require self reporting of violations.

Many organizations have NERC certified personnel who are not necessarily "operators". The requirements to maintain NERC certification are not geared for these support/technical planning personnel. There are benefits to having these individuals knowledgeable of the NERC standards and the operational/reliability concepts behind the NERC certification, but now with the major commitment required for maintaining the 'operator' credential, these individuals will most likely not remain NERC certified. While a training program for non-operators might still encompass these aspects, there should be consideration given as to having a "NERC generic fundamentals" or "technical" certification. This may not be applicable to this standard but more so to the overall certification program.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	H. Vann Weldon	
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NERC Region		Registered Ballot Body Segment
<input checked="" type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

The purpose statement of PER-003 is ambiguous.

Recommendation:

This SAR on PER-003 should review the purpose statement and consider whether or not the body of the Standard achieves the purpose as worded. If read one way, the purpose of PER-003 may be considered to imply that NERC Certification ensures all "...minimum competencies for operating a reliable Bulk Electric System." , instead of some minimum competencies applicable to all regions.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: Should not apply to operators of power plants; e.g., Generator Owners and/or Generator Operators. Should not apply to those who own, but do not operate bulk electric transmission systems; e.g., Transmission Owners.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

**Comment Form for First Draft of SAR for Certifying System Operators
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Comments: Continuing training of Certified System Operators should remain as a requirement to maintain certification.

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(Complete this page for comments from one organization or individual.)		
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Organization:	FirstEnergy Corp.	
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NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 – Load-serving Entities
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: However, the scope should be expanded to include a review of any existing and pending Regional Reliability Organization/Regional Entity standards, policies, requirements, etc. that contain Operator Certification requirements that can and should be elevated to the NERC Operator Certification standard to eliminate duplication wherever possible. This SAR should also include direction on ensuring that this standard development recognizes and is consistent with the Markets that exist and are pending including the methods and concepts used by those markets to ensure reliability related to operator certification. Version 0 comments should be considered in the standard development process with action required only when they are relevant to, applicable to, and will improve the quality and measureability of the standard as it exists today.

The scope should include instruction that the standards drafting team determine the functional entities that require certified operators and the tasks performed by those entities that require operator certification. This determination should include the consideration of the impacts on the reliability of the BES of switching operations under the control of operations personnel including the Local Control Centers via electronic methods (supervisory control) or communication with others. In addition, this determination should consider the amount of load under the control of operations personnel via electronic methods (supervisory control) available for load shedding. Load shedding in significant amounts can have a profound impact on the reliability of the interconnection and must be considered in determining operator certification requirements. Any operator that regularly performs one of those reliability-related tasks on behalf of the functional entity should be required to be certified. Thus, some operators at local control centers may require certification if they are performing some of these functions regularly.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

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Yes

No

Comments: This standard should not be applicable to Generator owners and Generator operators. The function of Generator Operator and Generator owner is very broad. Generator owners own and maintain generation facilities. They do not operate generation facilities. Centrally located Generation Operator (Dispatchers) should be included under this standard due to the impact they can have on the reliability of the BES. Genertor Operators (control room personnel in direct control of the unit at the plant) that operate two units or less simultaneously should not be included in the applicability of this standard due to the minimal impact they can have on the reliability of the BES.

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments: Not aware of any.

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments: Not aware of any.

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: No other comments



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

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1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments: There is a need to clearly define who needs to be certified. At the moment within the industry there is a difference in understanding and credentials across the board and there is no consistency. Some TOs' staff are certified while others are not, same for TOPs. At some locations they certify the Senior operator only. A unified approach is necessary for certification.

There is an opportunity for the drafting team to clarify issues related to any type and level of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactful real-time independent actions, (c) switching operations under the supervision of certified supervisors, or (d) responding to changes in equipment status and system conditions in real time (i.e. alarms, trips, etc.).

We believe TOP staff who are at the board and able to control devices that affect reliability, should be certified. This should be the case regardless of whether they answer to a RC or a senior position. They should understand how their operations affect reliability. For example, there may be emergencies that require independent action, loss of communication, etc.

Certification of Local Control Center Operators should not be required only if they have no decision making authority over Bulk Power System facilities. Directives from the FERC Order are centered around concerns regarding what are core competencies. These are strictly training issues and what requirements constitute proper and sufficient training. If this SAR was developed to address the FERC directive then it should be focusing only on what the core competencies should be. There is another Drafting Team working on Transmission Operator Training standard(s) and clarification could also be provided regarding core competencies and coordinated with that team to ensure the FERC directives are met.

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments: See our answer to question 1. The scope should be limited to competencies required for operators whose decisions affect the reliability of the BES. The scope should not be extended to requirements for certification of local control center operators and these should not be addressed in this standard. Extending certification requirements beyond the RC, BA and TOP has gone beyond the FERC directive and should not be required.

3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?

Yes

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No

Comments: It is difficult to be exact in determining what entities require certification because some do not affect reliability of the. For example, a small generator or local control area may not be significant to impact the reliability in their area. Perhaps, entities should be identified as impactful based on load/generation capability and voltage levels. From the reliability viewpoint, it is better to over certify than under certify.

The Interchange Authority has not yet been registered for compliance. Equipment owners who do not have any operational impact should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments: No

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments: No

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: NERC should encourage certification of operating trainees within their first 6 months of employment. If unable to become certified after a number of attempts (e.g. 3), they are to be seen as not having the minimum competencies needed to operate, and should be removed from the operator training program.

NERC certification represents a minimum requirement of needed knowledge. If trainees are training for a position that requires certification, they should all have to be NERC certified before they are allowed to operate, supervised or not. We need to have rigour, professionalism, and minimum standards for our industry.

We support NERC's move toward CEH requirements as the way to maintain certification. It ensures minimum training is delivered which is inconsistent across the industry..



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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Ron Falsetti	
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NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
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2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

This SAR is intended to address the following:

- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Please review the SAR, provide your comments on this form, and then e-mail the form to sarcomm@nerc.net by **August 15, 2007** with the words, “SO Certification SAR” in the subject line.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: Operating Personnel certification is critical to maintaining the reliability of the system but at the same time certification of Local Control Center Operators should not be required if they have no decision making authority over Bulk Power System facilities.

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The scope should not be extended to requirements for certification of local control center operators.

FERC's directives in Order 693 deal with competencies of operating personnel - these are training issues and should not be mixed up with operating personnel certification. The directives can be better addressed in coordination with another SDT - Transmission Operator Training Standards.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: We agree with the inclusion of all operating entities but question the need to include Transmission Owners and Generator Owners. In Functional Model Version 3, there are no real-time responsibilities assigned to these entities. Given the purpose of this standard, i.e., requiring operating personnel to acquire a certain level of credentials, the inclusion of these two entities seems inappropriate.

We also believe that these should not apply to other entities including the IA and the GOP

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments: None

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

Comments: No.

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: The drafting team must clarify issues related to any type of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactful real-time independent actions, or (c) switching operations under the supervision of certified supervisors. These are critical issues and unless clarity is obtained on these issues, it will be difficult to move forward to the next stage.

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 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 – Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 – Regional Reliability Organizations and Regional Entities

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

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- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: Certification of Local Control Center Operators is not required if they have no decisional making authority over Bulk Power System facilities and are implementing directives of a certified Operator.

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: We believe that IA, GO, GOP and TO be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments: As cited in FERC 693 under PER-003, Commission determined that no requirements were to be added for LCC, TO or GO certification:

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

"1407. Northern Indiana and APPA raise persuasive arguments regarding labor relations and labor retention issues that may arise if generator operators are required to be NERCcertified. The Commission understands these concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERCcertified at this time. In addition, the Commission understands that there are some long tenured unionized transmission operators who are very capable operators but who are unable to secure certification. This is not a new problem and has been addressed in various collective bargaining negotiations through grandfathering such capable operators who are unable to become certified. However, the Commission directs that if grandfathering is implemented, the entity must attest that the operators are competent. The Commission directs the ERO to consider grandfathering certification requirements for these personnel so that the industry can retain the knowledge and skill of these longtenured operators. Personnel that are subject to such grandfathering still must comply with applicable training requirements pursuant to PER-002-0."

Furthermore, the Commission's determination appearing in PER-002 of FERC Order 693 "1348. Several commenters express concern about requiring local control center operators to become fully trained to the same extent as transmission operators, balancing authorities and reliability coordinators. This is not the Commission's intent. As we stated in the NOPR, the proposed modifications do not imply a "one-size-fits-all" approach but rather ensure the creation of training programs that are structured and tailored to the different functions and needs of the personnel involved. Therefore the Commission agrees with Entergy that the training program should be tailored to the functions local control center operators, generator operators and operations planning staff perform that impact the reliable operation of the Bulk-Power System for both normal and emergency operations."

"1408. No comments were received on the proposed modifications to direct the ERO to modify the Reliability Standard to specify the minimum competencies that must be demonstrated to become and remain a certified operator and to identify the minimum competencies operating personnel must demonstrate to be certified. The Commission finds that these modifications improve the Reliability Standard by focusing on necessary competencies. Accordingly, the Commission directs the ERO to develop these modifications to the Reliability Standard.

1409. We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process."



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Kathleen Goodman	
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E-mail:	kgoodman@iso-ne.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
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Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

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2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: Certification of Local Control Center Operators should not be required if they have no decisional making authority over Bulk Power System facilities. Directives from the FERC Order are centered around concerns regarding what are core competencies. These are strictly training issues and what requirements constitute proper and sufficient training. If this SAR was developed to address the FERC directive then it should be focusing only on what the core competencies should be. There is another Drafting Team working on Transmission Operator Training standard(s) and clarification could also be provided regarding core competencies and coordinated with that team to ensure the FERC directives are met.

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The scope should be limited to competencies required for operators and should not be extended to requirements for certification of local control center operators; extending certification requirements beyond the RC, BA and TOP goes beyond the FERC directive.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: The IA, GO, GOP and TO should be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: As cited in FERC 693 under PER-003, Commission determination, no requirements were to be added for LCC, TO or GO certification:

"1407. Northern Indiana and APPA raise persuasive arguments regarding labor relations and labor retention issues that may arise if generator operators are required to be NERCcertified. The Commission understands these concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERCcertified at this time. In addition, the Commission understands that there are some long tenured unionized transmission operators who are very capable operators but who are unable to secure certification. This is not a new problem and has been addressed in various collective bargaining negotiations through grandfathering such capable operators who are unable to become certified. However, the Commission directs that if grandfathering is implemented, the entity must attest that the operators are competent. The Commission directs the ERO to consider grandfathering certification requirements for these personnel so that the industry can retain the knowledge and skill of these longtenured operators. Personnel that are subject to such grandfathering still must comply with applicable training requirements pursuant to PER-002-0."

Furthermore, the Commission's determination appearing in PER-002 of FERC Order 693:

"1348. Several commenters express concern about requiring local control center operators to become fully trained to the same extent as transmission operators, balancing authorities and reliability coordinators. This is not the Commission's intent. As we stated in the NOPR, the proposed modifications do not imply a "one-size-fits-all" approach but rather ensure the creation of training programs that are structured and tailored to the different functions and needs of the personnel involved.³⁶⁹ Therefore the Commission agrees with Entergy that the training program should be tailored to the functions local control center operators, generator operators and operations planning staff perform that impact the reliable operation of the Bulk-Power System for both normal and emergency operations."

"1408. No comments were received on the proposed modifications to direct the ERO to modify the Reliability Standard to specify the minimum competencies that must be demonstrated to become and remain a certified operator and to identify the minimum competencies operating personnel must demonstrate to be certified. The Commission finds that these modifications improve the Reliability Standard by focusing on necessary competencies. Accordingly, the Commission directs the ERO to develop these modifications to the Reliability Standard.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

1409. We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process."

Also, if the SAR proceeds, there is an opportunity for the drafting team to clarify issues related to any type of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactful real-time independent actions, or (c) switching operations under the supervision of certified supervisors.

Finally, as to the Exelon Corporation suggestion "that Version 1 of this Standard be initiated to address the requirement to have NERC Certified Operators that perform functions that are formally delegated similar to the requirement of Policy 9B Req. 3." It is our understanding that only tasks may be delegated, not functions.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Brian Thumm	
Organization:	ITC	
Telephone:	248-374-7846	
E-mail:	bthumm@itctransco.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments:

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments: The SAR proposes " grandfathering certification requirements for transmission operator personnel as part of the standards development process." We would like clarification on what, specifically, the grandfathering will cover, and for how long. Depending on the answer, grandfathering may or not be appropriate for inclusion in the SAR/Standard.



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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Jay Chase	
Organization:	KAMO Power	
Telephone:	918-276-0181	
E-mail:	jchase@kamopower.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
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Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments:

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments: There should be a ban on the practice of entities having formal or informal agreements that limit a certified operator's employment options without the prior knowledge and written consent of the operator.

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments: This will not only improve the reliability of the bulk electric system, it will also save money by assuring that operators are knowledgeable of their system and are operating lines and equipment in a safe and efficient manner. Maintaining certification will assure that every operator is constantly gaining the expertise required to operate in normal and emergency conditions.



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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Michael Gammon	
Organization:	Kansas City Power & Light	
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NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: Item 3 in the scope refers to incorporation of improvements from the standards development work plan, but I did not find that in the materials. I have indicated "Yes" to this question, with some concern as to what is contained in the standards development work plan that I am not aware of.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments:

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments: No.

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments: None.

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments: This standard should be careful to not include a certification requirement for any personnel who take direct orders from others to operate equipment on the BES and who cannot deviate from that direction and take independent actions that could affect the BES. This standard

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

should also be careful not to include personnel who support the systems and tools for system operators.



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 – Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 – Regional Reliability Organizations and Regional Entities

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

Group Comments (Complete this page if comments are from a group.)

Group Name: Midwest ISO Stakeholders
Lead Contact: Jason Marshall
Contact Organization: Midwest ISO
Contact Segment: 2
Contact Telephone: 317-249-5494
Contact E-mail: jmarshall@midwestiso.org

Additional Member Name	Additional Member Organization	Region *	Segment *
Jim Cyrulewski	JDRJC Associates	RFC	8
Joseph DePoorter	Madison Gas and Electric	MRO	4
Jim Eckels	First Energy	RFC	1
Joe Knight	Great River Energy	MRO	1
Dick Pursley	Great River Energy	MRO	1
Larry Larson	Otter Tail Power Company	MRO	1
Greg Mason	Dynegy	RFC+	5
		SERC+	5
		NPCC+	5
		WECC	5
Jeanne Kurzynowski	Consumers Energy	RFC	3,4

*If more than one Region or Segment applies, please list all. Regional acronyms and segment numbers are shown on prior page.

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

This SAR is intended to address the following:

- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Please review the SAR, provide your comments on this form, and then e-mail the form to sarcomm@nerc.net by **August 15, 2007** with the words, “SO Certification SAR” in the subject line.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The applicability of this Standard should not be extended to include Generator Owners or Generator Operators. Generator Owners own and maintain generation facilities. They do not operate generation facilities. Generation Operators operate generation facilities.

This Standard should not be extended to include Generator Operators in total. Many positions that routinely operate generating units are staffed by long-tenured union Control Room Operators in Plants who take directions from a centralized Generation Control Center and/or the local RTO/ISO. To require certification of these personnel would be analogous to requiring the certification of the outside field force of a Transmission Operator, including positions that operate and switch electric transmission lines.

Many of the V0 industry comments are no longer relevant and confusing. For instance many refer to the former operating policies. These policies are retired and thus those comments should be ignored.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: The applicability of this Standard should not be extended to include Generator Owners or Generator Operators. Generator Owners own and maintain generation facilities. They do not operate generation facilities. Generation Operators operate generation facilities.

This Standard should not be extended to include Generator Operators in total. Many positions that routinely operate generating units are staffed by long-tenured union Control Room Operators in Plants who take directions from a centralized Generation Control Center and/or the local RTO/ISO. To require certification of these personnel would be analogous to requiring the certification of the

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

outside field force of a Transmission Operator, including positions that operate and switch electric transmission lines.

A limited extension of this Standard to only include the real time operation personnel in a centralized Generation Control Center that interfaces with the Plants and the local RTO/ISO may be appropriate. However, it would not be appropriate in all situations. For example, PJM requires local control center operators to be PJM certified. In this case, there is no need for additional certification of these local control center operators.

Additionally, the scope indicates that "grandfathering certification requirements for transmission operator personnel" will be considered. FERC did not give a choice. They ordered that certain operators will not have to be certified due to grandfathering provisions. Thus, the only consideration is how to word this correctly in the standard. This exception should not apply only to transmission operator personnel as well. Any company with unionized operation personnel could have this problem. Modification of job requirements such as requiring certification is a trigger for contract re-negotiations with many collective bargaining agreements. FERC was very clear they did not intend to cause this to occur.

FERC did indicate that management personnel at these companies with grandfathered operators must ensure they are qualified to operate the system. The standards drafting team may want to consider including a requirement for these companies to formally do this in the standard through a letter to NERC Operator Certification Personnel or some similar means.

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments:

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments:

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: The scope should reflect that the standards drafting team should determine which functional entities require certified operators and which specific requirements in the standards should require operator certification. Then, any operator that regularly performs a task to meet compliance with one of these specific requirements should be required to be certified. Thus, some operators at local control centers may require certification if they are performing tasks to meet compliance on behalf of a registered entity. FERC clearly supports this position in Order 693. They specified that operators at local

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

control centers should not be required to be certified unless they are performing functions that impact the BES. If the specific requirements is limited to those affecting the BES, any local control center operator regularly performing one of those functions would meet this exception.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 – Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 – Regional Reliability Organizations and Regional Entities

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

Group Comments (Complete this page if comments are from a group.)

Group Name: Midwest Reliability Organization (MRO)
Lead Contact: Michael Brytowski
Contact Organization: Midwest Reliability Organization (MRO)
Contact Segment: 10
Contact Telephone: 651-855-1728
Contact E-mail: mj.brytowski@midwestreliability.org

Additional Member Name	Additional Member Organization	Region *	Segment *
Eric Ruskamp	LES	MRO	10
Michael Brytowski (secretary)	MRO	MRO	10
Laura Elsenpeter	MRO	MRO	10
Mark Pinney	MP	MRO	10
Mac Bohman	MP	MRO	10
Dave Rudolph	BEPC	MRO	10
Jason Marshall	MISO	MRO	10
Jim Haigh	WAPA	MRO	10
Pam Oreschick	XCEL	MRO	10
Carol Gerou	MP	MRO	10
Terry Bilke	MISO	MRO	10
Joe Knight	GRE	MRO	10

*If more than one Region or Segment applies, please list all. Regional acronyms and segment numbers are shown on prior page.

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure the revised standard is enforceable as a mandatory reliability standard with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

This SAR is intended to address the following:

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- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Please review the SAR, provide your comments on this form, and then e-mail the form to sarcomm@nerc.net by **August 15, 2007** with the words, “SO Certification SAR” in the subject line.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

1. In the SAR detailed description (second paragraph which starts with the text "During 2006, the standards staff received a request ..."), there is a sentence which states "the certification requirements for local transmission control center operators and local generation control center operators need to be identified and then the standard needs to be modified to address their certification." In the FERC Final Order 693 dated 03/16/07, paragraph 1407 (on page 372) disagrees with this purposed methodology since the commission was persuaded that a requirement of this nature would be too burdensome on labor relations and labor retention issues.
2. The MRO strongly recommends that the SDT take a hard look at which type of personnel will require certification and to what level. The MRO further recommends that certification is established by functions that are performed by personnel. For example, an engineer performing a next day transmission security study to meet NERC IRO-004 standard should be required to be certified as an Reliability Coordinator operator.
3. In this standard (NERC PER-003), measure 1.2 should be included in the requirement so that it is not an exception for the requirement.
4. The MRO requests clarification on how competences for each different operating classification will be identified?

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: The transmission owner (TO) and generator owner (GO) should be removed from the scope. These entities don't have a primary responsibility for real-time operations.

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments: N/A

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments: N/A

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments: N/A



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Rick White	
Organization:	Northeast Utilites	
Telephone:	860-665-2572	
E-mail:	whitefb@nu.com	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
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**Comment Form for First Draft of SAR for Certifying System Operators
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- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments:

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments: We agree that the standard needs to be modified to clarify which operating personnel need to be NERC certified.

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 (Project 2007-04)**

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**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

Group Comments (Complete this page if comments are from a group.)

Group Name: NPCC Reliability Standards Committee

Lead Contact: Guy V. Zito

Contact Organization: NPCC

Contact Segment: 10

Contact Telephone: 212.840.1070

Contact E-mail: gzito@npcc.org

Additional Member Name	Additional Member Organization	Region*	Segment*
Ralph Rufrano	New York Power Authority	NPCC	1
Donald Nelson	MA-DPU/EPD	NPCC	9
Michael Schiavne	NGrid	NPCC	1
Bill DeVries	New York ISO	NPCC	2
David Kiguel	Hydro One Networks	NPCC	2
Roger Champagne	Hydro Quebec TransEnergie	NPCC	1
Mike Ranalli	NGrid	NPCC	1
Michael Gildea	Constellation Energy	NPCC	5
Bob Pelligrini	United Illuminating	NPCC	1
Diane Barney	New York PSC	NPCC	9
Kathleen Goodman	ISO-New England	NPCC	2
Edwin Thompson	ConEdison	NPCC	1
Ron Falsetti	IESO, Ontario	NPCC	2
Al Adamson	New York State Reliability Council	NPCC	10
Brian Hogue	NPCC	NPCC	10
Guy V. Zito	NPCC	NPCC	10

*If more than one Region or Segment applies, please list all. Regional acronyms and segment numbers are shown on prior page.

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: Certification of Local Control Center Operators should not be required if they have no decisional making authority over Bulk Power System facilities. Directives from the FERC Order are centered around concerns regarding what are core competencies. These are strictly training issues and what requirements constitute proper and sufficient training. If this SAR was developed to address the FERC directive then it should be focusing only on what the core competencies should be. There is another Drafting Team working on Transmission Operator Training standard(s) and clarification could also be provided regarding core competencies and coordinated with that team to ensure the FERC directives are met.

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The scope should be limited to competencies required for operators and should not be extended to requirements for certification of local control center operators and this "THOSE" should not be addressed in this standard. Extending certification requirements beyond the RC, BA and TOP has gone beyond the FERC directive and should not be required.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: NPCC participating members believe that IA, GO, GOP and TO should be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.)."

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments:

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: As cited in FERC 693 under PER-003, Commission determination, no requirements were to be added for LCC, TO or GO certification

"1407. Northern Indiana and APPA raise persuasive arguments regarding labor relations and labor retention issues that may arise if generator operators are required to be NERCcertified. The Commission understands these concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERCcertified at this time. In addition, the Commission understands that there are some long tenured unionized transmission operators who are very capable operators but who are unable to secure certification. This is not a new problem and has been addressed in various collective bargaining negotiations through grandfathering such capable operators who are unable to become certified. However, the Commission directs that if grandfathering is implemented, the entity must attest that the operators are competent. The Commission directs the ERO to consider grandfathering certification requirements for these personnel so that the industry can retain the knowledge and skill of these longtenured operators. Personnel that are subject to such grandfathering still must comply with applicable training requirements pursuant to PER-002-0."

Furthermore, the Commission's determination appearing in PER-002 of FERC Order 693 "1348. Several commenters express concern about requiring local control center operators to become fully trained to the same extent as transmission operators, balancing authorities and reliability coordinators. This is not the Commission' s intent. As we stated in the NOPR, the proposed modifications do not imply a " one-size-fits-all" approach but rather ensure the creation of training programs that are structured and tailored to the different functions and needs of the personnel involved.³⁶⁹ Therefore the Commission agrees with Entergy that the training program should be tailored to the functions local control center operators, generator operators and operations planning staff perform that impact the reliable operation of the Bulk-Power System for both normal and emergency operations."

"1408. No comments were received on the proposed modifications to direct the ERO to modify the Reliability Standard to specify the minimum competencies that must be demonstrated to become and remain a certified operator and to identify the minimum competencies operating personnel must demonstrate to be certified. The Commission finds that these modifications improve the Reliability Standard by focusing on necessary

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

competencies. Accordingly, the Commission directs the ERO to develop these modifications to the Reliability Standard.

1409. We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process."

Also, if the SAR proceeds, there is an opportunity for the drafting team to clarify issues related to any type of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactful real-time independent actions, or (c) switching operations under the supervision of certified supervisors.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
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Organization:	Oncor Electric Delivery	
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E-mail:	stan.southers@oncor.com / erankin@oncor.com	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 – Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 – Regional Reliability Organizations and Regional Entities

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

Background Information

The purpose of this SAR is to modify PER-003 — Operating Personnel Credentials. The proposed modifications should:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
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4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standard.

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(Project 2007-04)**

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?

Yes

No

Comments:

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments:

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

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(Complete this page for comments from one organization or individual.)		
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Organization:		
Telephone:		
E-mail:		
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1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?

Yes

No

Comments:

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments:

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments:

6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Comments: One typographical suggestion: On Page SAR-2 under "Industry Need", I believe "stand up" should be "start up".

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Mike Pfeister	
Organization:	Salt River Project	
Telephone:	602-236-3970	
E-mail:	Mike.Pfeister@srpnet.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments:

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments:

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(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
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E-mail:		
NERC Region		Registered Ballot Body Segment
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: The scope is too broad. It should be modified to reflect the certification requirements for personnel who perform specific reliability tasks. Personnel who have the authority to independently perform one or more of those tasks on behalf of the functional entity should be certified. The standards drafting team should specify the reliability task that require certification of personnel.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: This SAR should be limited to the Reliability Coordinator, Balancing Authority, Interchange Authority, Transmission Operator and Generator Operator (in some entities this is called "Market Operator") This is not to infer that an operator that works inside a power plant should be certified.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments: We are not aware of any regional variances needed at this time.

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Karl A Bryan	
Organization:	US Army Corps of Engineers	
Telephone:	503-808-3894	
E-mail:	karl.a.bryan@usace.army.mil	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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- 1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: What role will the Generator Owner play in this standard? Are there going to be requirements for certification of maintenance folks at the project as well as the relay technician? If not, why was the Generator Owner listed as a responsible entity under this standard?

I do agree with the requirement for certification of Generator Operators. The generator operators need to have a better understanding of the role they play in supporting the transmission system as well as they need to be certified in Black Start and Black Start capable operations.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: I don't see where the Generator Owner has a role in this reliability standard.

- 4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here**

Comments:

- 5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.**

Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Michael J. Roluti	
Organization:	U.S. Bureau of Reclamation	
Telephone:	303-445-3750	
E-mail:	mroluti@do.usbr.gov	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
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Yes

No

Comments:

- 2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.**

Yes

No

Comments: In the Detailed Description the SAR states: " The certification requirements for local transmission control center operators and local generation control center operators need to be identified and then the standard needs to be modified to address their certification." This request appears to be in direct opposition to the direction of the Commission. In Order 693 (P 1407) the Commission states that they " are persuaded not to require generator operators or transmission operators at local control centers to be NERC-certified at this time."

We recommend that certification requirements for local control centers not be developed. In the case of generator operators we recommend that certification requirements be determined only for real-time operational personnel located in a centralized generation control center that interfaces with the plants.

- 3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?**

Yes

No

Comments: The standard currently applies to the reliability functions Transmission Operator, Balancing Authority, and Reliability Coordinator. In Order 693 (P1409) the Commission finds "...that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff." The SAR seeks to expand the standard to include the additional reliability functions Generator Operator, Generator Owner, Transmission Owner, and Interchange Authority. We agree that including the Generator Operator function supports this reliability goal.

Comment Form for First Draft of SAR for Certifying System Operators (Project 2007-04)

However, we question the need to expand the applicability to Generator Owner and Transmission Owner. We have no comment regarding Interchange Authority.

NERC has defined (per Statement of Compliance Registry Criteria, Revision 3) the reliability function Transmission Owner as: “ the entity that owns and maintains transmission facilities” . Likewise the reliability function generator owner is defined as: “ the entity that owns and maintains generating units.

We fail to see how including these reliability functions serves to assure the credentials of those who have a primary responsibility for real-time operations. We recommend the reliability functions Generator Owner and Transmission Owner be dropped from the SAR.

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments:

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Craig McLean	
Organization:	Manitobe Hydro	
Telephone:	204 487 5517	
E-mail:	cmclean@hydro.mb.ca	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 – Transmission Owners
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1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments:

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Yes

No

Comments: Manitoba Hydro does not believe that the generator operators need to be NERC Certified. The generator operators are not responsible for the operation of the bulk electric system and do not act unilaterally in response to the bulk electric system. They take their direction from the Transmission Operator/Balancing Authority.

3. Do you agree with the applicability of the SAR? If not, what functional entities do you think need to be added/deleted?

Yes

No

Comments: Manitoba Hydro believes PER-003-0 applicability is right. The generation operators should not be added as they are not responsible for the operation of the bulk electric system. They do not act unilaterally in response to the bulk electric system but take their direction from the Transmission Operator/Balancing Authority who are and should remain the Certified System Operators.

4. If you are aware of any Regional Variances associated with the proposed standard action, please identify them here

Comments:

5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Comments:

**Comment Form for First Draft of SAR for Certifying System Operators
(Project 2007-04)**

- 6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.**

Comments:

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

The Certifying System Operators SAR drafting team thanks all commenters who submitted comments on the first draft of the Certifying System Operators SAR. This SAR was posted for a 30-day public comment period from July 17 through August 15, 2007. The drafting team asked stakeholders to provide feedback on the SAR through a special SAR Comment Form. There were 29 sets of comments, including comments from more than 80 different people from more than 50 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received and FERC Order 693, the drafting team made the following changes to the SAR:

- Removed language about the certification of the generator operators and transmission operators at local control centers.
- Removed the following functions from the applicable functions section of the SAR: Interchange Authority, Transmission Owner, Generator Owner, and Generator Operator.

The Certifying System Operators SAR Drafting Team is recommending the SAR be approved as revised above and that the SAR move forward to standard drafting.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures: <http://www.nerc.com/standards/newstandardsprocess.html>.

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

The Industry Segments are:

- 1 – Transmission Owners
- 2 – RTOs, ISOs
- 3 – Load-serving Entities
- 4 – Transmission-dependent Utilities
- 5 – Electric Generators
- 6 – Electricity Brokers, Aggregators, and Marketers
- 7 – Large Electricity End Users
- 8 – Small Electricity End Users
- 9 – Federal, State, Provincial Regulatory or other Government Entities
- 10 – Regional Reliability Organizations, Regional Entities

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Anita Lee (G4)	Alberta Electric System Operator		✓										
2.	William J. Smith	Allegheny Power	✓											
3.	Anita Lee	Alberta Electric System Operator		✓										
4.	Jeffrey V. Hackman	Ameren	✓											
5.	Jason Shaver	American Transmission Co.	✓											
6.	Michael Scott	APS Power Operations	✓											
7.	Dave Rudolph (G6)	Basin Electric Power Coop.	✓		✓			✓	✓					
8.	Tony Krosky	Brazos Electric Power Coop., Inc.	✓											
9.	Brent Kingsford (G4)	California ISO		✓										
10.	Brad Calhoun	CenterPoint Energy	✓											
11.	Alan Gale	City of Tallahassee (TAL)						✓						
12.	Edwin Thompson (G1)	ConEd	✓											
13.	Michael Gildea (G1)	Constellation Energy						✓						
14.	Jeanne Kurzynowski (G5)	Consumers Energy			✓	✓								
15.	Greg Mason (G5)	Dynegy						✓						
16.	Wayne Mitchell	Entergy Services, Inc.	✓											
17.	William Franklin	Entergy Services, Inc. SPO							✓					
18.	Jerry Stout	Entergy Services, Inc. SPO							✓					
19.	Steve Myers (G4)	ERCOT		✓										
20.	W. Vann Weldon	ERCOT, Inc.												✓
21.	Larry Hartley (G2)	FE Solutions	✓		✓			✓	✓					
22.	Eric Bryant (G2)	FE Solutions Assets Utilization	✓		✓			✓	✓					

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
23.	Jim Eckels (G5)	FirstEnergy	✓											
24.	David Folk (G2)	FirstEnergy Corp.	✓		✓			✓	✓					
25.	Joe Knight (G5) (G6)	Great River Energy	✓											
26.	Dick Pursley (G5)	Great River Energy	✓											
27.	David Kiguel (G1) (G3)	Hydro One Networks, Inc.		✓										
28.	Tom Irvine (G3)	Hydro One Networks, Inc.	✓											
29.	Rob MacDonald (G3)	Hydro One Networks, Inc.	✓											
30.	Chris Cooper (G3)	Hydro One Networks, Inc.	✓											
31.	Archie Kotopoulos (G3)	Hydro One Networks, Inc.	✓											
32.	Roger Champagne (G1)	Hydro Quebec TransEnergie	✓											
33.	Ron Falsetti (I) (G1) (G4)	IESO		✓										
34.	Kathleen Goodman (I) (G1)	ISO New England		✓										
35.	Matt Goldberg (G4)	ISO New England		✓										
36.	Brian Thumm	ITC Transco	✓											
37.	Jim Cyrulewski (G5)	JDRJC Associates										✓		
38.	Jay Chase	KAMO Power												
39.	Michael Gammon	Kansas City Power & Light (KCPL)	✓											
40.	Eric Ruskamp (G6)	Lincoln Electric System							✓					
41.	Donald Nelson (G1)	MA/DUP-EPD											✓	
42.	Joseph DePoorter (G5)	Madison Gas & Electric				✓								
43.	Craig McLean	Manitoba Hydro	✓		✓	✓	✓							
44.	Jason Marshall (G5) (G6)	Midwest ISO, Inc.		✓										
45.	Terry Bilke (G6)	Midwest ISO, Inc.		✓										
46.	William Phillips (G4)	Midwest ISO, Inc.		✓										
47.	Michael Brytowski (G6)	Midwest Reliability Organization												✓
48.	Laura Elsenpeter (G6)	Midwest Reliability Organization												✓
49.	Mark Pinney (G6)	Minnesota Power	✓		✓			✓	✓					
50.	Mac Bohman (G6)	Minnesota Power	✓		✓			✓	✓					
51.	Carol Gerou (G6)	Minnesota Power	✓		✓			✓	✓					
52.	Bill DeVries (G1)	New York ISO		✓										
53.	Jim Castle (G4)	New York ISO		✓										
54.	Diane Barney (G1)	New York PSC											✓	
55.	Michael Shiovone (G1)	NGrid	✓											
56.	Mike Rinalli (G1)	NGrid	✓											

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
57.	Rick White (G6)	Northeast Utilities	✓											
58.	Guy V. Zito (G1)	NPCC												✓
59.	Brian Hogue (G1)	NPCC												✓
60.	Ralph Rufrano (G1)	NYPA	✓											
61.	Al Adamson (G1)	NYSRC												✓
62.	Stan Southers	Oncor Electric Delivery	✓											
63.	Ellis Rankin	Oncor Electric Delivery	✓											
64.	Larry Larson (G5)	Otter Tail Power Company	✓											
65.	Alicia Daugherty (G4)	PJM		✓										
66.	Phil Riley (G7)	Public Service Commission of SC											✓	
67.	Mignon L. Clyburn (G7)	Public Service Commission of SC											✓	
68.	Elizabeth B. Fleming (G7)	Public Service Commission of SC											✓	
69.	G. O'Neal Hamilton (G7)	Public Service Commission of SC											✓	
70.	John E. Howard (G7)	Public Service Commission of SC											✓	
71.	Randy Mitchell (G7)	Public Service Commission of SC											✓	
72.	C. Robert Moseley (G7)	Public Service Commission of SC											✓	
73.	David A. Wright (G7)	Public Service Commission of SC											✓	
74.	Mike Pfeister	Salt River Project (SRP)	✓											
75.	Marc Butts (G8)	Southern Co. Services, Inc.	✓											
76.	James Ford (G8)	Southern Co. Services, Inc.	✓											
77.	Jim Busbin (G8)	Southern Co. Services, Inc.	✓											
78.	J.T. Wood (G8)	Southern Co. Services, Inc.	✓											
79.	Roman Carter (G8)	Southern Co. Services, Inc.	✓											
80.	Gary Gorham (G8)	Southern Co. Services, Inc.	✓											
81.	Jim Griffith (G8)	Southern Co. Services, Inc.	✓											
82.	Charles Yeung (G4)	Southwest Power Pool		✓										
83.	Mike Pelligrini (G1)	United Illuminating	✓											
84.	Karl A. Bryan	US Army Corps of						✓						

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
		Engineers												
85.	Michael J. Roluti	US Bureau of Reclamation					✓							
86.	Jim Haigh (G6)	Western Area Power Admin.	✓					✓						
87.	Pam Oreschnick (G6)	Xcel	✓		✓		✓	✓						

I – Indicates that individual comments were submitted in addition to comments submitted as part of a group

G1 – NPCC Standards Review Committee (NPCC RSC)

G2 – FirstEnergy Corp. (FE)

G3 – Hydro One Networks, Inc.

G4 – ISO/RTO Council

G5 – Midwest ISO Stakeholders (MISO)

G6 – Midwest Reliability Organization (MRO)

G7 – Public Service Commission of South Carolina (PSC SC)

G8 – Southern Company Transmission (SOCO)

Index to Questions, Comments, and Responses

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Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

1. Do you agree that there is a reliability-related reason for the proposed SAR? If not, please explain in the comment area.

Summary Consideration:

Most commenters agreed that there is a reliability-related reason for the proposed SAR. Some of the commenters that did not agree indicated that certification of local control center operators should not be required and others indicated that the standard needs to clearly identify who needs to be certified.

Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function. The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.

Question #1			
Commenter	Yes	No	Comment
City of Tallahassee		<input checked="" type="checkbox"/>	The standard, as it exists today, provides adequate reliability to the Bulk Electric System. The changes are needed from an administrative standpoint to conform to the new format and processes directed by FERC. Clarity is needed to address the Interpretation Request and the Version 0 comments.
<p>Response: The CSO SAR Drafting Team is not changing the applicability of the existing standard. The CSO Standard Drafting Team will address FERC Order 693 directives, as well as incorporate the necessary content, structure, and language to comply with the NERC standards process. The CSO Standard Drafting Team will also address V0 comments that are captured in the SAR.</p>			
ISO/RTO Council		<input checked="" type="checkbox"/>	Certification of Local Control Center Operators is not required if they have no decisional making authority over Bulk Power System facilities and are implementing directives of a certified Operator.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
NPCC RSC ISO New England		<input checked="" type="checkbox"/>	Certification of Local Control Center Operators should not be required if they have no decisional making authority over Bulk Power System facilities. Directives from the FERC Order are centered around concerns regarding what are core competencies. These are strictly training issues and what requirements constitute proper and sufficient training.

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
			<p>If this SAR was developed to address the FERC directive then it should be focusing only on what the core competencies should be. There is another Drafting Team working on Transmission Operator Training standard(s) and clarification could also be provided regarding core competencies and coordinated with that team to ensure the FERC directives are met.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
Hydro One	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>There is a need to clearly define who needs to be certified. At the moment within the industry there is a difference in understanding and credentials across the board and there is no consistency. Some TOs' staff are certified while others are not, same for TOPs. At some locations they certify the Senior operator only. A unified approach is necessary for certification.</p> <p>There is an opportunity for the drafting team to clarify issues related to any type and level of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactive real-time independent actions, (c) switching operations under the supervision of certified supervisors, or (d) responding to changes in equipmnt status and system conditions in real time (i.e. alarms, trips, etc.).</p> <p>We believe TOP staff who are at the board and able to control devices that affect reliability, should be certified. This should be the case regardless of whether they answer to a RC or a senior position. They should understand how their operations affect reliability. For example, there may be emergencies that require independent action, loss of communication, etc.</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
			<p>Certification of Local Control Center Operators should not be required only if they have no decision making authority over Bulk Power System facilities. Directives from the FERC Order are centered around concerns regarding what are core competencies. These are strictly training issues and what requirements constitute proper and sufficient training. If this SAR was developed to address the FERC directive then it should be focusing only on what the core competencies should be. There is another Drafting Team working on Transmission Operator Training standard(s) and clarification could also be provided regarding core competencies and coordinated with that team to ensure the FERC directives are met.</p>
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>The CSO SAR Drafting Team disagrees that this standard should address support personnel certification. NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
IESO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Operating Personnel certification is critical to maintaining the reliability of the system but at the same time certification of Local Control Center Operators should not be required if they have no decision making authority over Bulk Power System facilities.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
<p>the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ATC	<input checked="" type="checkbox"/>		<p>ATC agrees that there is a reliability related need for NERC to expand the certification requirements for "operating positions" that have primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System. The expansion must include local transmission control center "operating positions" that meet requirement 1.1.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Brazos	<input checked="" type="checkbox"/>		<p>Need to clarify some requirements. For example switching operations under the supervision of certified supervisors.</p>
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>			
Entergy	<input checked="" type="checkbox"/>		<p>I'm note sure that all TO need to be NERC Certified. In our case we have sub-transmission dispatches that monitor and address switching at the local level and receive operational directions from our Transmission Operators. We recommend that certification requirements for local control centers not be developed.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>			
Ameren	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #1			
Commenter	Yes	No	Comment
APS Power Operations	<input checked="" type="checkbox"/>		
CenterPoint Energy	<input checked="" type="checkbox"/>		
KAMO Power	<input checked="" type="checkbox"/>		
Allegheny Power	<input checked="" type="checkbox"/>		
Oncor	<input checked="" type="checkbox"/>		
US ACE	<input checked="" type="checkbox"/>		
US BRC	<input checked="" type="checkbox"/>		
Entergy SPO	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
FirstEnergy	<input checked="" type="checkbox"/>		
ITC Transco	<input checked="" type="checkbox"/>		
KCPL	<input checked="" type="checkbox"/>		
MISO Stakeholders	<input checked="" type="checkbox"/>		
MRO	<input checked="" type="checkbox"/>		
Northeast Utilities	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
SRP	<input checked="" type="checkbox"/>		
SOCO	<input checked="" type="checkbox"/>		
Manitoba Hydro	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

2. Do you agree with the scope of the proposed SAR? If not, please explain in the comment area.

Summary Consideration:

Almost half of the comments did not agree with the scope of the proposed SAR, suggesting that the certification credentials should not be established for local control center operators. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.

Question #2			
Commenter	Yes	No	Comment
MRO		<input checked="" type="checkbox"/>	<p>1. In the SAR detailed description (second paragraph which starts with the text "During 2006, the standards staff received a request ..."), there is a sentence which states "the certification requirements for local transmission control center operators and local generation control center operators need to be identified and then the standard needs to be modified to address their certification." In the FERC Final Order 693 dated 03/16/07, paragraph 1407 (on page 372) disagrees with this purposed methodology since the commission was persuaded that a requirement of this nature would be too burdensome on labor relations and labor rention issues.</p> <p>2. The MRO strongly recommends that the SDT take a hard look at which type of personnel will require certification and to what level. The MRO further recommends that certification is established by functions that are performed by personnel. For example, an engineer performing a next day transmission security study to meet NERC IRO-004 standard should be required to be certified as an Reliability Coordinator operator.</p> <p>3. In this standard (NERC PER-003), measure 1.2 should be included in the requirement so that it is not an exception for the requirement.</p> <p>4. The MRO requests clarification on how competences for each different operating classification will be identified?</p>
<p>Response: 1. The CSO SAR Drafting team removed this language from the SAR.</p> <p>2. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
<p>Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>3. M1.2 is being addressed by Project 2006-004 Back-up Facilities, which is revising EOP-008. (http://www.nerc.com/~filez/standards/Backup_Facilities.html)</p> <p>4. In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
MISO Stakeholders		<input checked="" type="checkbox"/>	<p>The applicability of this Standard should not be extended to include Generator Owners or Generator Operators. Generator Owners own and maintain generation facilities. They do not operate generation facilities. Generation Operators operate generation facilities.</p> <p>This Standard should not be extended to include Generator Operators in total. Many positions that routinely operate generating units are staffed by long-tenured union Control Room Operators in Plants who take directions from a centralized Generation Control Center and/or the local RTO/ISO. To require certification of these personnel would be analogous to requiring the certification of the outside field force of a Transmission Operator, including positions that operate and switch electric transmission lines.</p> <p>Many of the VO industry comments are no longer relevant and confusing. For instance many refer to the former operating policies. These policies are retired and thus those comments should be ignored.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The CSO Standard Drafting Team will review and address the VO industry comments as part of the standards development effort.</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
Ameren		<input checked="" type="checkbox"/>	New certification credentials should not be established for LCC operators. To the extent they perform BA or TO duties under authority of an ISO/RTO, they should have the same credentials so that they can understand and appreciate their actions in context of the greater system need. Additionally, to the extent that they have a broader understanding they will be able to offer additional pertinent information to the ISO/RTO operator which may affect his/her decision but was more obvious to the LCC operator. Additionally, the blackout and subsequent events have shaped the new standards and "experience" in the case of "grandfathered" operators is a poor substitute for certification in today's operating climate. Grandfathering should not be part of certification.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p>			
CenterPoint Energy		<input checked="" type="checkbox"/>	In FERC Order No. 693 paragraph 1407, the Commission states that it "is persuaded not to require generator operators and transmission operators at local control centers to be NERC Certified at this time"; however, this SAR proposes to certify local control center operators. It appears that the SAR seeks to expand the FERC directive in paragraph 1409 of Order No. 693 beyond what FERC intends. There is no benefit to including local control center operators in the NERC certification process, which is more applicable to an entity with the responsibility "for operating a reliable Bulk Electric System." In addition, including local control center operators in PER-003 might impose an unnecessary financial burden without benefit to reliability.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
City of Tallahassee		<input checked="" type="checkbox"/>	The term "scope" is not used in the SAR. Is this supposed to be the "Purpose", "Industry Need", Brief Description", "Detailed Description", or "Background Information"? The Detailed Description indicates that this SAR will address which "system operators" needs to be certified. I am okay with that "scope", but am not okay if it delves more deeply into who should be NERC certified.
<p>Response: The CSO SAR Drafting Team intended the "scope" of the SAR to include the elements that are included in the SAR, which are captured in the Purpose, Industry Need, Brief Description, and the Reliability Functions sections. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html.</p>			
IESO		<input checked="" type="checkbox"/>	<p>The scope should not be extended to requirements for certification of local control center operators.</p> <p>FERC's directives in Order 693 deal with competencies of operating personnel - these are training issues and should not be mixed up with operating personnel certification. The directives can be better addressed in coordination with another SDT - Transmission Operator Training Standards.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification.</p>			
ISO New England		<input checked="" type="checkbox"/>	The scope should be limited to competencies required for operators and should not be extended to requirements for certification of local control center operators; extending certification requirements beyond the RC, BA and TOP goes beyond the FERC directive.

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
NPCC RSC		<input checked="" type="checkbox"/>	<p>The scope should be limited to competencies required for operators and should not be extended to requirements for certification of local control center operators and this "THOSE" should not be addressed in this standard. Extending certification requirements beyond the RC, BA and TOP has gone beyond the FERC directive and should not be required.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US ACE		<input checked="" type="checkbox"/>	<p>What role will the Generator Owner play in this standard? Are there going to be requirements for certification of maintenance folks at the project as well as the relay technician? If not, why was the Generator Owner listed as a responsible entity under this standard?</p> <p>I do agree with the requirement for certification of Generator Operators. The generator operators need to have a better understanding of the role they play in supporting the transmission system as well as they need to be certified in Black Start and Black Start capable operations.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US BRC		<input checked="" type="checkbox"/>	<p>In the Detailed Description the SAR states: "The certification requirements for local transmission control center operators and local generation control center operators need</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
			<p>to be identified and then the standard needs to be modified to address their certification." This request appears to be in direct opposition to the direction of the Commission. In Order 693 (P 1407) the Commission states that they "are persuaded not to require generator operators or transmission operators at local control centers to be NERC-certified at this time."</p> <p>We recommend that certification requirements for local control centers not be developed. In the case of generator operators we recommend that certification requirements be determined only for real-time operational personnel located in a centralized generation control center that interfaces with the plants.</p>
<p>Response: The CSO SAR Drafting Team removed the language from the Detailed Description. Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ATC		<input checked="" type="checkbox"/>	<p>The SAR needs to be expanded to include NERC Standards PER-001 and PER-002. Doing so is the only way to insure the development of a comprehensive set of personnel standards. To limit the effort to only one standard ignores the foreseeable issues.</p> <p>Will ongoing training be required for the applicable individuals? Will applicable individuals be required to protect the BES as established in PER-001? If the answer is no to both of these questions then what will certification achieve?</p> <p>All control center system operators that are responsible for implementing NERC Requirements either independently or under the directions of the TOP should be certified. In addition those individuals should be required to participate in ongoing training activities.</p>
<p>Response: There are other NERC standard projects that are addressing some of the PER standards. The revision to PER-003 is being addressed by this Project, 2007-04 (http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html). The revision to PER-001 is being addressed in Project 2007-03, Real-Time Operations (http://www.nerc.com/~filez/standards/Real-time_Operations_Project_2007-03.html). PER-002 is being replaced with PER-005, Project 2006-04, System Personnel Training (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). Ongoing training requirements are required for applicable individuals. Applicable individuals will be required to protect the</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
<p>BES as established in PER-001. The purpose of certification is to establish the base knowledge level to operate the BES in North America.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Manitoba Hydro		<input checked="" type="checkbox"/>	Manitoba Hydro does not believe that the generator operators need to be NERC Certified. The generator operators are not responsible for the operation of the bulk electric system and do not act unilaterally in response to the bulk electric system. They take their direction from the Transmission Operator/Balancing Authority.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
SOCO		<input checked="" type="checkbox"/>	The scope is too broad. It should be modified to reflect the certification requirements for personnel who perform specific reliability tasks. Personnel who have the authority to independently perform one or more of those tasks on behalf of the functional entity should be certified. The standards drafting team should specify the reliability task that require certification of personnel.
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Brazos		<input checked="" type="checkbox"/>	The Operating Personnel certification is critical for those with the decision making authority over Bulk Power System facilities ie RC, BA, and TOP. The competencies

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
			required for the local control center operators is better addressed by training. Extending certification requirements beyond the RC, BA and TOP would go beyond the FERC directive and should not be required.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Hydro One	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	See our answer to question 1. The scope should be limited to competencies required for operators whose decisions affect the reliability of the BES. The scope should not be extended to requirements for certification of local control center operators and these should not be addressed in this standard. Extending certification requirements beyond the RC, BA and TOP has gone beyond the FERC directive and should not be required.
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>The CSO SAR Drafting Team agrees that this standard is not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC</p>			

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
directives, based on the clarification.			
KCPL	<input checked="" type="checkbox"/>		Item 3 in the scope refers to incorporation of improvements from the standards development work plan, but I did not find that in the materials. I have indicated "Yes" to this question, with some concern as to what is contained in the standards development work plan that I am not aware of.
<p>Response: The most recent Reliability Standards Development Workplan is posted on the NERC website at the following URL:</p> <p>ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf</p>			
FirstEnergy	<input checked="" type="checkbox"/>		<p>However, the scope should be expanded to include a review of any existing and pending Regional Reliability Organization/Regional Entity standards, policies, requirements, etc. that contain Operator Certification requirements that can and should be elevated to the NERC Operator Certification standard to eliminate duplication wherever possible. This SAR should also include direction on ensuring that this standard development recognizes and is consistent with the Markets that exist and are pending including the methods and concepts used by those markets to ensure reliability related to operator certification. Version 0 comments should be considered in the standard development process with action required only when they are relevant to, applicable to, and will improve the quality and measureability of the standard as it exists today.</p> <p>The scope should include instruction that the standards drafting team determine the functional entities that require certified operators and the tasks performed by those entities that require operator certification. This determination should include the consideration of the impacts on the reliability of the BES of switching operations under the control of operations personnel including the Local Control Centers via electronic methods (supervisory control) or communication with others. In addition, this determination should consider the amount of load under the control of operations personnel via electronic methods (supervisory control) available for load shedding. Load shedding in significant amounts can have a profound impact on the reliability of the interconnection and must be considered in determining operator certification requirements. Any operator that regularly performs one of those reliability-related tasks on behalf of the functional entity should be required to be certified. Thus, some operators at local control centers may require certification if they are performing some of these functions regularly.</p>
<p>Response: The CSO SAR Drafting Team disagrees that the scope should be expanded to include existing and pending</p>			

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Question #2			
Commenter	Yes	No	Comment
<p>RRO/RE standards. If RRO/RE standards are included the NERC certification requirements, the certification would no longer be applicable to <u>all</u> of North America. The content of the certification exam is based on a job analysis and subsequent content outline among the certified population. Therefore all questions on the exam can be traced specifically back to tasks that system operators perform and the content includes any responsible tasks.</p> <p>The CSO Standard Drafting Team will address the V0 comments when revising the standard.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>			
Allegheny Power	<input checked="" type="checkbox"/>		Allegheny Power agrees with scope of the proposed SAR. Below are what we feel are the the most important scoping issues: 1) Specify the appropriate levels of certification for all applicable entities; 2) The issue of "Critical Tasks" must be addressed by the Standard Drafting Team. The "Critical Tasks" must be defined as specifically as possible; 3) The phrase "direct, continuous supervision, and obsevation" must be defined in clear language.
<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard. The CSO Standard Drafting Team will also address your comments that included in comment 2) critical tasks and comment 3) direct, continuous supervision, and observation, as captured in the list of VO Industry Comments in the SAR.</p>			
ITC Transco	<input checked="" type="checkbox"/>		
APS Power Operations	<input checked="" type="checkbox"/>		
KAMO Power	<input checked="" type="checkbox"/>		
Oncor	<input checked="" type="checkbox"/>		
Entergy	<input checked="" type="checkbox"/>		
Entergy SPO	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #2			
Commenter	Yes	No	Comment
ERCOT	<input checked="" type="checkbox"/>		
Northeast Utilities	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
SRP	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

3. Do you agree with the applicability of the proposed standard action? If not, what function entities do you think need to be added or delete?

Summary Consideration:

The majority of the commenters did not agree with the applicability of the proposed standard action, not agreeing with the inclusion of local control center operators. A few commenters did not support the inclusion of the Interchange Authority since it has not yet been registered for compliance.

Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.

Question #3			
Commenter	Yes	No	Comment
CenterPoint Energy		<input checked="" type="checkbox"/>	CenterPoint Energy disagrees with the inclusion of Transmission Owners and Generator Owners as local control center operators as discussed in our response to Question 2.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
City of Tallahassee		<input checked="" type="checkbox"/>	Based on the indication that additional system operators may need to be NERC certified as a result of this SAR, applicability should include the Transmission Service Provider, Distribution Provider and the Load-Serving Entity. To not include them from the beginning will "short change" them if the discussions feared in 2 above does take place. These entities do control shedding load, whether as directed by the Reliability Coordinator or by their Transmission Service Provider and should be invited to the party at the beginning.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

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Question #3			
Commenter	Yes	No	Comment
Allegheny Power		<input checked="" type="checkbox"/>	This standard should apply to the Transmission Operator (Local Control Center), Generator Owner (Market Operations Center) the Generator Operator as well as the Transmission Operator, Reliability Coordinator and the Balancing Authority.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
IESO		<input checked="" type="checkbox"/>	<p>We agree with the inclusion of all operating entities but question the need to include Transmission Owners and Generator Owners. In Functional Model Version 3, there are no real-time responsibilities assigned to these entities. Given the purpose of this standard, i.e., requiring operating personnel to acquire a certain level of credentials, the inclusion of these two entities seems inappropriate.</p> <p>We also believe that these should not apply to other entities including the IA and the GOP.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ISO New England		<input checked="" type="checkbox"/>	The IA, GO, GOP and TO should be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

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Question #3			
Commenter	Yes	No	Comment
NPCC RSC		<input checked="" type="checkbox"/>	NPCC participating members believe that IA, GO, GOP and TO should be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.)."
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US ACE		<input checked="" type="checkbox"/>	I don't see where the Generator Owner has a role in this reliability standard.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
US BRC		<input checked="" type="checkbox"/>	<p>The standard currently applies to the reliability functions Transmission Operator, Balancing Authority, and Reliability Coordinator. In Order 693 (P1409) the Commission finds "...that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff." The SAR seeks to expand the standard to include the additional reliability functions Generator Operator, Generator Owner, Transmission Owner, and Interchange Authority. We agree that including the Generator Operator function supports this reliability goal.</p> <p>However, we question the need to expand the applicability to Generator Owner and Transmission Owner. We have no comment regarding Interchange Authority.</p> <p>NERC has defined (per Statement of Compliance Registry Criteria, Revision 3) the reliability function Transmission Owner as: "the entity that owns and maintains</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #3			
Commenter	Yes	No	Comment
			<p>transmission facilities". Likewise the reliability function generator owner is defined as: " the entity that owns and maintains generating units.</p> <p>We fail to see how including these reliability functions serves to assure the credentials of those who have a primary responsibility for real-time operations. We recommend the reliability functions Generator Owner and Transmission Owner be dropped from the SAR.</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ATC		<input checked="" type="checkbox"/>	<p>The addition of other entities to have certified "operating positions" is only one piece of the bigger puzzle. NERC must address the group of personnel standards to insure a set of comprehensive reliability standards. (PER-003, PER-002 and PER-001)</p> <p>If other NERC standards are not going to be addressed by this effort then NERC should limit this SAR to only those entities that perform real-time TOP, BA and RC Requirements using non-certified personal.</p> <p>What is the reason to stop at the certification requirement? (PER-003)</p>
<p>Response: There are other NERC standard projects that are addressing the PER standards. The revision to PER-003 is being addressed by this Project, 2007-04 (http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html). The revision to PER-001 is being addressed in Project 2007-03, Real-Time Operations (http://www.nerc.com/~filez/standards/Real-time_Operations_Project_2007-03.html). PER-002 is being replaced with PER-005, Project 2006-04, System Personnel Training (http://www.nerc.com/~filez/standards/System-Personnel-Training.html).</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Brazos		<input checked="" type="checkbox"/>	<p>Applicability to local control center operators should not required for reasons stated above.</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #3			
Commenter	Yes	No	Comment
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Entergy		<input checked="" type="checkbox"/>	Not sure that new certification requirements need to be added for all Transmission Dispatchers, I believe NERC has addressed certification and we need to leave it up to the Transmission Owners to establish what level of TO's need to be certified.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Entergy SPO		<input checked="" type="checkbox"/>	Based on the scope of this SAR to determine if entities other than BA, TO and RC should be subject to some type of certification then all functions may be applicable, especially LSE, DP, TSP.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ERCOT		<input checked="" type="checkbox"/>	Should not apply to operators of power plants; e.g., Generator Owners and/or Generator Operators. Should not apply to those who own, but do not operate bulk electric transmission systems; e.g., Transmission Owners.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			

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Question #3			
Commenter	Yes	No	Comment
FirstEnergy		<input checked="" type="checkbox"/>	This standard should not be applicable to Generator owners and Generator operators. The function of Generator Operator and Generator owner is very broad. Generator owners own and maintain generation facilities. They do not operate generation facilities. Centrally located Generation Operator (Dispatchers) should be included under this standard due to the impact they can have on the reliability of the BES. Genertor Operators (control room personnel in direct control of the unit at the plant) that operate two units or less simultaneously should not be included in the applicability of this standard due to the minimal impact they can have on the reliability of the BES.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Hydro One		<input checked="" type="checkbox"/>	<p>It is difficult to be exact in determining what entities require certification because some do not affect reliability of the. For example, a small generator or local control area may not be significant to impact the reliability in their area. Perhaps, entities should be identified as impactive based on load/generation capability and voltage levels. From the reliability viewpoint, it is better to over certify than under certify.</p> <p>The Interchange Authority has not yet been registered for compliance. Equipment owners who do not have any operational impact should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).</p>
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
ISO/RTO Council		<input checked="" type="checkbox"/>	We believe that IA, GO, GOP and TO be removed from applicability. The Interchange Authority has not yet been registered for compliance. Equipment owners do not have any operational impact and, therefore, should not be included. Generator Operators will be trained to operate their specific technology/equipment and, should follow directions of their operational authority (RC, TOP, etc.).

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Question #3			
Commenter	Yes	No	Comment
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
MISO Stakeholders		<input checked="" type="checkbox"/>	<p>The applicability of this Standard should not be extended to include Generator Owners or Generator Operators. Generator Owners own and maintain generation facilities. They do not operate generation facilities. Generation Operators operate generation facilities.</p> <p>This Standard should not be extended to include Generator Operators in total. Many positions that routinely operate generating units are staffed by long-tenured union Control Room Operators in Plants who take directions from a centralized Generation Control Center and/or the local RTO/ISO. To require certification of these personnel would be analogous to requiring the certification of the outside field force of a Transmission Operator, including positions that operate and switch electric transmission lines.</p> <p>A limited extension of this Standard to only include the real time operation personnel in a centralized Generation Control Center that interfaces with the Plants and the local RTO/ISO may be appropriate. However, it would not be appropriate in all situations. For example, PJM requires local control center operators to be PJM certified. In this case, there is no need for additional certification of these local control center operators.</p> <p>Additionally, the scope indicates that "grandfathering certification requirements for transmission operator personnel" will be considered. FERC did not give a choice. They ordered that certain operators will not have to be certified due to grandfathering provisions. Thus, the only consideration is how to word this correctly in the standard. This exception should not apply only to transmission operator personnel as well. Any company with unionized operation personnel could have this problem. Modification of job requirements such as requiring certification is a trigger for contract re-negotiations with many collective bargaining agreements. FERC was very clear they did not intend to cause this to occur.</p> <p>FERC did indicate that management personnel at these companies with grandfathered</p>

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Question #3			
Commenter	Yes	No	Comment
			operators must ensure they are qualified to operate the system. The standards drafting team may want to consider including a requirement for these companies to formally do this in the standard through a letter to NERC Operator Certification Personnel or some similar means.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p>			
MRO		<input checked="" type="checkbox"/>	The transmission owner (TO) and generator owner (GO) should be removed from the scope. These entities don't have a primary responsibility for real-time operations.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
SOCO		<input checked="" type="checkbox"/>	This SAR should be limited to the Reliability Coordinator, Balancing Authority, Interchange Authority, Transmission Operator and Generator Operator (in some entities this is called "Market Operator") This is not to infer that an operator that works inside a power plant should be certified.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Manitoba Hydro		<input checked="" type="checkbox"/>	Manitoba Hydro believes PER-003-0 applicability is right. The generation operators should not be added as they are not responsible for the operation of the bulk electric system. They do not act unilaterally in response to the bulk electric system but take

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #3			
Commenter	Yes	No	Comment
			their direction from the Transmission Operator/Balancing Authority who are and should remain the Certified System Operators.
<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>			
Northeast Utilities	<input checked="" type="checkbox"/>		
PSC SC	<input checked="" type="checkbox"/>		
SRP	<input checked="" type="checkbox"/>		
ITC Transco	<input checked="" type="checkbox"/>		
KCPL	<input checked="" type="checkbox"/>		
Oncor	<input checked="" type="checkbox"/>		
Ameren	<input checked="" type="checkbox"/>		
KAMO Power	<input checked="" type="checkbox"/>		

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4. If you are aware of any Regional Variances associated with the proposed standard action, please identify here.

Summary Consideration:

The majority of the comments were not aware of any Regional Variances associated with the proposed standard action. One commenter suggested that the overlapping certification requirements between NERC and ISOs/RTOs be addressed. The CSO SAR Drafting Team disagreed, explaining that certification programs that are administered and required by ISOs/RTOs are outside the scope of this SAR. A NERC Certification program that addresses regional variances would undermine the intent of a uniform certification for all North America.

Question #4		
Commenter	Regional Variance	Comment
Allegheny Power		The overlapping certification requirements between NERC and ISOs/RTOs should be addressed.
Response: The CSO SAR Drafting Team disagrees. Certification programs that are administered and required by ISO/RTOs are outside the scope of this SAR. A NERC Certification program that addresses regional variances would undermine the intent of a uniform certification for all North America.		
Ameren		No comment.
CenterPoint Energy		No comment.
City of Tallahassee		None
IESO		None
ISO New England		No comment.
NPCC RSC		No comment.
Oncor		No comment.
US ACE		No comment.
US BRC		No comment.
ATC		No
Brazos		No comment.
Entergy		No comment.
Entergy SPO		No comment.
ERCOT		No comment.
FirstEnergy		Not aware of any.
Hydro One		No
ISO/RTO Council		No comment.

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Question #4		
Commenter	Regional Variance	Comment
ITC Transco		No comment.
KCPL		No
MISO Stakeholders		No comment.
MRO		N/A
Northeast Utilities		No comment.
PSC SC		No comment.
SRP		No comment.
SOCO		We are not aware of any regional variances needed .
Manitoba Hydro		No comment.

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5. If you are aware of the need for a business practice to support the proposed standard action, please identify it here.

Summary Consideration:

The majority of the comments were not aware of the need for a business practice to support the proposed standard action. One comment suggested that there should be a ban on the practices of entities having formal or informal agreements that limit a certified operator’s employment opportunities. The CSO SAR Drafting Team believes this is a personnel issue and that personnel practices are outside the scope of the SAR.

Question #5	
Commenter	Comment
KAMO Power	There should be a ban on the practice of entities having formal or informal agreements that limit a certified operator's employment options without the prior knowledge and written consent of the operator.
Response: The CSO SAR Drafting Team believes that entity personnel practices are outside the scope of this SAR.	
Ameren	No comment.
CenterPoint Energy	No comment.
City of Tallahassee	None
Allegheny Power	None
IESO	No
ISO New England	No comment.
NPCC RSC	No comment.
Oncor	No comment.
US ACE	No comment.
US BRC	No comment.
ATC	No
Brazos	No comment.
Entergy	No comment.
Entergy SPO	No comment.
ERCOT	No comment.
FirstEnergy	Not aware of any.
Hydro One	No
ISO/RTO Council	No comment.
ITC Transco	No comment.
KCPL	None
MISO Stakeholders	No comment.
MRO	N/A

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Question #5	
Commenter	Comment
Northeast Utilities	No comment.
PSC SC	No comment.
SRP	No comment.
SOCO	No comment.
Manitoba Hydro	No comment.

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6. If you have any other comments on this SAR that you haven't already provided in response to the previous questions, please provide them here.

Question #6	
Commenter	Comment
APS Power Operations	<p>On the subject of PER-003-0, B., R1, we agree with the Industry Comment listed that personnel who MEET BOTH requirements R1.1 AND R1.2 shall be NERC certified, not MEET EITHER.</p> <p>On the subject of PER-003-0, M1, we believe that a qualified individual providing technical direction to a trainee will observe the work in progress to the extent necessary to verify the performance is proper. Providing direction does not imply continuous observation, but does imply control of the performance and observation appropriate to the difficulty and sensitivity of the work. We do not believe that value will be added by creating a requirement to conduct a comprehensive cataloging of task criticality in order to determine the proper amount of work supervision for the trainee. These decisions can be made most effectively by the qualified operator based on the trainee's progress to date, the existing circumstances, and their knowledge of the task at hand.</p> <p>On the subject of the compliance monitoring process, we agree that the wording "staffing plan" would be more clearly stated as "staffing schedule".</p>
<p>Response: The existing SAR captures your comment on R1 and will be addressed by the CSO Standard Drafting Team.</p> <p>The existing SAR captures your comment comment on M1 with respect to the critical tasks. The CSO Standard Drafting Team will address the V0 comment to clarify "What constitutes a "critical task? What duties performed in a typical control center are not "critical?" Inclusion of "critical tasks" is most likely a reference to the Critical Task List that has been established to guide operators in determining which of the four certification credentials (BIO, TO, BIT, RO) they are required to attain." The CSO SAR Drafting Team does not agree that M1.1 should be changed beyond addressing the existing comment on critical tasks. To comply with the NERC standards process to ensure the standard is enforceable, the CSO Standard Drafting Team will review and revise the requiements and measures to ensure they are unambiguous.</p> <p>The existing SAR captures your comment on the compliance monitoring process and will be addressed by the CSO Standard Drafting Team.</p>	
KAMO Power	<p>This will not only improve the reliability of the bulk electric system, it will also save money by assuring that operators are knowledgeable of their system and are operating lines and equipment in a safe and efficient manor. Maintaining certification will assure that every operator is constantly gaining the expertise required to operate in normal and emergency conditions.</p>
<p>Response: The CSO SAR Drafting Team agrees and thanks you for your comment.</p>	
IESO	<p>The drafting team must clarify issues related to any type of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactive real-time independent actions, or (c) switching operations under the supervision of certified supervisors. These are critical issues and unless clarity is obtained on these issues, it will be difficult to move</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	forward to the next stage.
	<p>Response: This SAR and standard are not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the <u>training</u> needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the <u>certification</u> of support personnel.</p> <p>The CSO SAR Drafting team believes your comment (b) and (c) are captured in the existing SAR by the following statement "The standard needs to be modified to clarify which system operators need to be NERC certified."</p>
NPCC RSC ISO New England	<p>As cited in FERC 693 under PER-003, Commission determination, no requirements were to be added for LCC, TO or GO certification:</p> <p>"1407. Northern Indiana and APPA raise persuasive arguments regarding labor relations and labor retention issues that may arise if generator operators are required to be NERCcertified. The Commission understands these concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERCcertified . In addition, the Commission understands that there are some long tenured unionized transmission operators who are very capable operators but who are unable to secure certification. This is not a new problem and has been addressed in various collective bargaining negotiations through grandfathering such capable operators who are unable to become certified. However, the Commission directs that if grandfathering is implemented, the entity must attest that the operators are competent. The Commission directs the ERO to consider grandfathering certification requirements for these personnel so that the industry can retain the knowledge and skill of these longtenured operators. Personnel that are subject to such grandfathering still must comply with applicable training requirements pursuant to PER-002-0."</p> <p>Furthermore, the Commission's determination appearing in PER-002 of FERC Order 693:</p> <p>"1348. Several commenters express concern about requiring local control center operators to become fully trained to the same extent as transmission operators, balancing authorities and reliability coordinators. This is not the Commission's intent. As we stated in the NOPR, the proposed modifications do not imply a "one-size-fits-all" approach but rather ensure the creation of training programs that are structured and tailored to the</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	<p>different functions and needs of the personnel involved.369 Therefore the Commission agrees with Entergy that the training program should be tailored to the functions local control center operators, generator operators and operations planning staff perform that impact the reliable operation of the Bulk-Power System for both normal and emergency operations."</p> <p>"1408. No comments were received on the proposed modifications to direct the ERO to modify the Reliability Standard to specify the minimum competencies that must be demonstrated to become and remain a certified operator and to identify the minimum competencies operating personnel must demonstrate to be certified. The Commission finds that these modifications improve the Reliability Standard by focusing on necessary competencies. Accordingly, the Commission directs the ERO to develop these modifications to the Reliability Standard.</p> <p>1409. We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process."</p> <p>Also, if the SAR proceeds, there is an opportunity for the drafting team to clarify issues related to any type of certification that may be required for TOP's staff performing (a) supporting functions (e.g. outage planning), (b) reliability impactful real-time independent actions, or (c) switching operations under the supervision of certified supervisors.</p> <p>Finally, as to the Exelon Corporation suggestion "that Version 1 of this Standard be initiated to address the requirement to have NERC Certified Operators that perform functions that are formally delegated similar to the requirement of Policy 9B Req. 3." It is our understanding that only tasks may be delegated, not functions.</p>

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Question #6	
Commenter	Comment
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>This SAR and standard are not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the <u>training</u> needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC Filing Volumes I II III Reliability Standards Development Plan 2008 2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the <u>certification</u> of support personnel.</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>
ATC	<p>Item 1: Using existing NERC rules some Transmission Operators (TOP) have delegated critical real-time operating control to local transmission control centers while at the same time avoiding certification requirements. (PER-003) Because of this situation NERC should review existing rules surrounding the delegation of Requirements and determine if modifications are needed. That effort may result in achieving the same goal as this SAR.</p> <p>ATC believes that a TOP should not be able to delegate Requirements that address real-time operations to non-certified system operators.</p> <p>Item 2: ATC is concerned with the use and weight placed on comments submitted during the Version 0 effort in the developed and justification if this SAR. The standard drafting team should place greater weight and consideration on comments submitted during this effort.</p>
	<p>Response: Item 1. The existing SAR captures your comment on R1 (see Exelon's comments in the V0 Comments section). The CSO Standard Drafting Team will address this comment during the development of the standard.</p> <p>Item 2: The existing SAR captures V0 comments. The CSO SAR Drafting Team has responded to all comments received on version 1 of the SAR and has revised the SAR based on industry feedback. The CSO Standard Drafting Team uses the revised SAR to develop the standard.</p>

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Question #6	
Commenter	Comment
Entergy SPO	<p>We agree that new certification credentials may need to be developed based on local control center operations, or at least the requirements clarified in the standard with respect to these operators; especially to clarify the RTO/ISO and sub entity responsibilities.</p> <p>The proposal to consider grandfathering certification requirements for transmission operator personnel should be used only as a short transition period to allow proper testing/training/certification of all identified personnel.</p> <p>Please also consider the following aspects of the standard: R1 "Each...shall staff all operating positions..." The term "operating positions" needs better definition. For example, does this include technical/engineering personnel on shift that run short term and real time studies?</p> <p>M1, 1.1, 1.2 are actually "Requirements" and should be moved into that section.</p> <p>M1.1 "Critical tasks" needs definition, even if only to clarify that they are defined by the entity.</p> <p>M1.2 is out of place here. Where did the 4 hour limit come from? Should the requirement really be stated in EOP-009 Loss of Control Center Functionality as the time required in which to establish control at a site with NERC certified operators?</p> <p>D1 "...Staffing schedules and certification numbers will be compared to ensure that positions that require NERC certified operating personnel were covered as required. Certification numbers from the Transmission Operator, Balancing Authority, and Reliability Coordinator will be compared with NERC records..." is actually a Measure and should be moved into that section. The statement regarding exception reporting is no longer needed with the compliance programs that each region has established that require self reporting of violations.</p> <p>Many organizations have NERC certified personnel who are not necessarily "operators". The requirements to maintain NERC certification are not geared for these support/technical planning personnel. There are benefits to having these individuals knowledgeable of the NERC standards and the operational/reliability concepts behind the NERC certification, but now with the major commitment required for maintaining the 'operator' credential, these individuals will most likely not remain NERC certified. While a training program for non-operators might still encompass these aspects, there should be consideration given as to having a "NERC generic fundamentals" or "technical" certification. This may not be applicable to this standard but more so to the overall</p>

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Question #6	
Commenter	Comment
	certification program.
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p> <p>In FERC Order 693, FERC directs the ERO to (1) "specify minimum competencies that must be demonstrated to become and remain a certified operator" and (2) "identify minimum competencies operating personnel must demonstrate to become certified". The CSO SAR Drafting team received clarification from FERC on the difference between these two directives. FERC staff explained that these two directives have the same intent. The CSO Standard Drafting Team will address the FERC directives, based on the clarification. Your comment on M1.1 is currently included in the VO Comments section and will be addressed by the CSO Standard Drafting Team.</p> <p>M1.2 is being addressed by Project 2006-004 Back-up Facilities, which is revising EOP-008. http://www.nerc.com/~filez/standards/Backup_Facilities.html</p> <p>The CSO Standard Drafting Team will revise the compliance section to conform with the revised standard format.</p> <p>NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p>
ERCOT	Continuing training of Certified System Operators should remain as a requirement to maintain certification.
	<p>Response: The CSO SAR Drafting Team does not believe that continuing training of Certified System Operators is within the scope of this SAR. The NERC System Operator Certification Program Manual addresses continuing training requirements for certification.</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	http://www.nerc.com/~training/certification/files/SOC_Program_Manual.pdf
Hydro One	<p>NERC should encourage certification of operating trainees within their first 6 months of employment. If unable to become certified after a number of attempts (e.g. 3), they are to be seen as not having the minimum competencies needed to operate, and should be removed from the operator training program.</p> <p>NERC certification represents a minimum requirement of needed knowledge. If trainees are training for a position that requires certification, they should all have to be NERC certified before they are allowed to operate, supervised or not. We need to have NERC should encourage certification of operating trainees within their first 6 months of employment. If unable to become certified after a number of attempts (e.g. 3), they are to be seen as not having the minimum competencies needed to operate, and should be removed from the operator training program.</p> <p>NERC certification represents a minimum requirement of needed knowledge. If trainees are training for a position that requires certification, they should all have to be NERC certified before they are allowed to operate, supervised or not. We need to have rigour, professionalism, and minimum standards for our industry.</p> <p>We support NERC's move toward CEH requirements as the way to maintain certification. It ensures minimum training is delivered which is inconsistent across the industry, professionalism, and minimum standards for our industry.</p> <p>We support NERC's move toward CEH requirements as the way to maintain certification. It ensures minimum training is delivered which is inconsistent across the industry.</p>
	<p>Response: The NERC Certification process and the SAR/Standard do not intend to dictate the amount of time that an entity takes to have operating trainees become certified.</p> <p>The CSO SAR Drafting Team agrees with your last statement.</p>
ISO/RTO Council	<p>As cited in FERC 693 under PER-003, Commission determined that no requirements were to be added for LCC, TO or GO certification:</p> <p>"1407. Northern Indiana and APPA raise persuasive arguments regarding labor relations and labor retention issues that may arise if generator operators are required to be NERCcertified. The Commission understands these concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERCcertified . In addition, the Commission understands that there are some long tenured unionized transmission operators who are very capable</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	<p>operators but who are unable to secure certification. This is not a new problem and has been addressed in various collective bargaining negotiations through grandfathering such capable operators who are unable to become certified. However, the Commission directs that if grandfathering is implemented, the entity must attest that the operators are competent. The Commission directs the ERO to consider grandfathering certification requirements for these personnel so that the industry can retain the knowledge and skill of these longtenured operators. Personnel that are subject to such grandfathering still must comply with applicable training requirements pursuant to PER-002-0."</p> <p>Furthermore, the Commission's determination appearing in PER-002 of FERC Order 693 "1348. Several commenters express concern about requiring local control center operators to become fully trained to the same extent as transmission operators, balancing authorities and reliability coordinators. This is not the Commission's intent. As we stated in the NOPR, the proposed modifications do not imply a "one-size-fits-all" approach but rather ensure the creation of training programs that are structured and tailored to the different functions and needs of the personnel involved. Therefore the Commission agrees with Entergy that the training program should be tailored to the functions local control center operators, generator operators and operations planning staff perform that impact the reliable operation of the Bulk-Power System for both normal and emergency operations."</p> <p>"1408. No comments were received on the proposed modifications to direct the ERO to modify the Reliability Standard to specify the minimum competencies that must be demonstrated to become and remain a certified operator and to identify the minimum competencies operating personnel must demonstrate to be certified. The Commission finds that these modifications improve the Reliability Standard by focusing on necessary competencies. Accordingly, the Commission directs the ERO to develop these modifications to the Reliability Standard.</p> <p>1409. We find that the Reliability Standard serves an important reliability goal in requiring applicable entities to staff all operating positions that have a primary responsibility for real-time operations or are directly responsible for complying with the Reliability Standards with NERC-certified staff. Accordingly, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and § 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. The Commission also directs the ERO to consider grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process."</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p>
ITC Transco	<p>The SAR proposes "grandfathering certification requirements for transmission operator personnel as part of the standards development process." We would like clarification on what, specifically, the grandfathering will cover, and for how long. Depending on the answer, grandfathering may or not be appropriate for inclusion in the SAR/Standard.</p>
	<p>Response: FERC Order 693 Paragraph 1409, FERC "directs the ERO to <u>consider</u> grandfathering certification requirements for transmission operator personnel in the Reliability Standards development process". As captured in the SAR under FERC Order 693 comments, the CSO Standard Drafting Team will address this consideration.</p>
KCPL	<p>This standard should be careful to not include a certification requirement for any personnel who take direct orders from others to operate equipment on the BES and who cannot deviate from that direction and take independent actions that could affect the BES. This standard should also be careful not to include personnel who support the systems and tools for system operators.</p>
	<p>Response: Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p> <p>The CSO SAR Drafting Team agrees that this standard is not addressing support personnel. NERC Project 2010-01, Support Personnel Training, is intended to determine the training needs of generator operators and operations support staff with a direct impact on reliable operations of the bulk power system. A high-level description of the project can be found in the NERC Reliability Standards Development Plan: 2008-2010 (ftp://www.nerc.com/pub/sys/all_updl/standards/sar/FERC_Filing_Volumes_I_II_III_Reliability_Standards_Development_Plan_2008_2010.pdf). A similar project and SAR will need to be prepared to determine the scope of a standard for the certification of support personnel.</p>
MISO Stakeholders	<p>The scope should reflect that the standards drafting team should determine which functional entities require certified operators and which specific requirements in the standards should require operator</p>

Consideration of Comments on 1st Draft of Certifying System Operators SAR (Project 2007-04)

Question #6	
Commenter	Comment
	certification. Then, any operator that regularly performs a task to meet compliance with one of these specific requirements should be required to be certified. Thus, some operators at local control centers may require certification if they are performing tasks to meet compliance on behalf of a registered entity. FERC clearly supports this position in Order 693. They specified that operators at local control centers should not be required to be certified unless they are performing functions that impact the BES. If the specific requirements is limited to those affecting the BES, any local control center operator regularly performing one of those functions would meet this exception.
	<p>Response: The SAR includes a statement that "The standard needs to be modified to clarify which system operators need to be NERC certified." The CSO Standard Drafting Team will address this issue during the development of the standard.</p> <p>Based on FERC Order 693, industry feedback, and the NERC Functional Model Version 3, the CSO SAR Drafting Team has removed the Interchange Authority, Transmission Owner, the Generator Owner, and the Generator Operator from the functions to which the standard will apply. The applicability to the Reliability Coordinator, the Balancing Authority, and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Each entity needs to review the NERC Functional Model to determine applicability based on the task lists that are included in each function.</p> <p>http://www.nerc.com/~filez/functionalmodel.html</p>
Northeast Utilities	We agree that the standard needs to be modified to clarify which operating personnel need to be NERC certified.
	Response: The CSO SAR Drafting Team agrees and thanks you for your comment.
PSC SC	One typographical suggestion: On Page SAR-2 under "Industry Need", I believe "stand up" should be "start up".
	Response: The CSO SAR Drafting Team believes stand up is the appropriate term.
SRP	No comment.
SOCO	No comment.
Manitoba Hydro	No comment.
FirstEnergy	No other comments.
Brazos	No comment.
MRO	N/A
Entergy	No comment.
Oncor	No comment.
US ACE	No comment.
US BRC	No comment.
Allegheny Power	None
CenterPoint Energy	No comment.
City of Tallahassee	None

Standard Authorization Request Form

Title of Proposed Standard	Operating Personnel Credentials (Project 2007-04)
Request Date	July 07, 2007
Revised Date	November 27, 2007

SAR Requestor Information	SAR Type (<i>Check a box for each one that applies.</i>)
Name David Carlson	<input type="checkbox"/> New Standard
Primary Contact David Carlson	<input checked="" type="checkbox"/> Revision to existing Standard: PER-003-0 Operating Personnel Credentials
Telephone (630) 691-4480 Fax (630) 691-4697	<input type="checkbox"/> Withdrawal of existing Standard
E-mail david.carlson@exeloncorp.com	<input type="checkbox"/> Urgent Action

Standards Authorization Request Form

Purpose (Describe the purpose of the standard — what the standard will achieve in support of reliability.)

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure they are enforceable as mandatory reliability standards with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standards.

This SAR is intended to address the following:

- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Industry Need (Provide a detailed statement justifying the need for the proposed standard, along with any supporting documentation.)

PER-003 is a Version 0 standard. As the electric reliability organization begins enforcing compliance with reliability standards under Section 215 of the Federal Power Act in the United States and applicable statutes and regulations in Canada, the industry needs a set of clear, measurable, and enforceable reliability standards. The Version 0 standards, while a good foundation, were translated from historical operating and planning policies and guides that were appropriate in an era of voluntary compliance. The Version 0 standards and recent updates were put in place as a temporary starting point to stand up the electric reliability organization and begin enforcement of mandatory standards. However, it is important to update the standards in a timely manner, incorporating improvements to make the standards more suitable for enforcement and to capture prior recommendations that were deferred during the Version 0 translation.

Brief Description

This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

The standard will be revised to address the directives from FERC Order 693 and industry comments from Version 0.

The standard will also be revised to conform to the latest version of the Reliability Standards Development Procedure and the ERO Sanctions Guidelines. The standard drafting team will apply the Reliability Standard Review Guidelines when modifying the standard. (Attachment 1)

Detailed Description (Describe the proposed standard in sufficient detail to clearly define the scope in a manner that can be easily understood by others.)

This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

During 2006, the standards staff received a request to develop an interpretation to clarify which operating personnel need to be NERC certified, and the interpretation did not meet stakeholder consensus. The standard needs to be modified to clarify which system operators need to be NERC certified. The existing NERC standard only requires certification of the system operators who work for the entities who register as the Reliability Coordinator, Transmission Operator and Balancing Authority. The following directives and comments will be addressed:

FERC Order 693

- Specify minimum competencies that must be demonstrated to become and remain a certified operator
- Identify minimum competencies operating personnel must demonstrate to be certified
- Consider grandfathering certification requirements for transmission operator personnel as part of the standards development process

VO Industry Comments

- Clarification from the Drafting Team on the intended meaning of “current” in the Measures.
- R1 - Suggestion to be incorporated into the next version (version 1): The operating position is to be filled by a person holding the appropriate level certification. For Example; a person that is acting as the Reliability Coordinator will need to hold a Reliability Coordinator Operator Certification and a person acting as a Transmission Operator would need to hold a Transmission Operator Certification.
- R1 - Policy 8C Standard 1 is satisfactorily represented by Standard 032 Requirement 1. However, there was a one word change from “both” to “either”, that can change the meaning of the statement, depending upon interpretation. In the interest of keeping the continuity between Policy 8C and Standard 32, the wording should be kept consistent and any changes be made through the normal process as part of version 1.
- R1 - Exelon Corporation suggests that Version 1 of this Standard be initiated to address the requirement to have NERC Certified Operators that perform functions that are formally delegated similar to the requirement of Policy 9B Req. 3.
- Measure could be that one has documentation of Certification of all personnel.
- M1.a indicates that “Trainees may perform critical tasks only under the direct, continuous supervision and observation . . . “What constitutes a “critical task?” What duties performed in a typical control center are not “critical?” Inclusion of “critical tasks” is most likely a reference to the Critical Task List that has been established to guide operators in determining which of the four certification credentials (BIO, TO, BIT, RO) they are required to attain.
- The OTS suggests the reference to “critical tasks” be removed to prevent possible interpretation that the uncertified operator can perform routine tasks but not “critical” tasks. Or, change it to reference the Critical Task List of the credential and include it in the Standard.

COMPLIANCE MONITORING PROCESS - It isn't clear what is meant by “previous calendar year staffing plan.” A “staffing plan” sounds like a plan for staffing – if so, what does that have to do with filling operating positions with certified operators? A simple determination of which positions require certified operators should be sufficient. Need to modify to be clear.

Standards Authorization Request Form

Reliability Functions

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
<input checked="" type="checkbox"/>	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
<input checked="" type="checkbox"/>	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input type="checkbox"/>	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input type="checkbox"/>	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
	Transmission Owner	Owns and maintains transmission facilities.
<input checked="" type="checkbox"/>	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input type="checkbox"/>	Distribution Provider	Delivers electrical energy to the End-use customer.
	Generator Owner	Owns and maintains generation facilities.
	Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/>	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/>	Market Operator	Interface point for reliability functions with commercial functions.
<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Standards Authorization Request Form

Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
<input type="checkbox"/>	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk electric systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input checked="" type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all the following Market Interface Principles? <i>(Select "yes" or "no" from the drop-down box.)</i>	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. An Organization Standard shall not give any market participant an unfair competitive advantage. Yes	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	
5. An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes	

Standards Authorization Request Form

Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Differences

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
SERC	
RFC	
SPP	
WECC	

Attachment 1 - Standard Review Guidelines

Applicability

Does this reliability standard clearly identify the functional classes of entities responsible for complying with the reliability standard, with any specific additions or exceptions noted? Where multiple functional classes are identified is there a clear line of responsibility for each requirement identifying the functional class and entity to be held accountable for compliance? Does the requirement allow overlapping responsibilities between Registered Entities possibly creating confusion for who is ultimately accountable for compliance?

Does this reliability standard identify the geographic applicability of the standard, such as the entire North American bulk power system, an interconnection, or within a regional entity area? If no geographic limitations are identified, the default is that the standard applies throughout North America.

Does this reliability standard identify any limitations on the applicability of the standard based on electric facility characteristics, such as generators with a nameplate rating of 20 MW or greater, or transmission facilities energized at 200 kV or greater or some other criteria? If no functional entity limitations are identified, the default is that the standard applies to all identified functional entities.

Purpose

Does this reliability standard have a clear statement of purpose that describes how the standard contributes to the reliability of the bulk power system? Each purpose statement should include a value statement.

Performance Requirements

Does this reliability standard state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest?

Does each requirement identify who shall do what under what conditions and to what outcome?

Measurability

Is each performance requirement stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by that requirement?

Does each performance requirement have one or more associated measures used to objectively evaluate compliance with the requirement?

If performance results can be practically measured quantitatively, are metrics provided within the requirement to indicate satisfactory performance?

Technical Basis in Engineering and Operations

Is this reliability standard based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that particular field?

Completeness

Is this reliability standard complete and self-contained? Does the standard depend on external information to determine the required level of performance?

Consequences for Noncompliance

In combination with guidelines for penalties and sanctions, as well as other ERO and regional entity compliance documents, are the consequences of violating a standard clearly known to the responsible entities?

Clear Language

Is the reliability standard stated using clear and unambiguous language? Can responsible entities, using reasonable judgment and in keeping with good utility practices, arrive at a consistent interpretation of the required performance?

Practicality

Does this reliability standard establish requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter?

Capability Requirements versus Performance Requirements

In general, requirements for entities to have ‘capabilities’ (this would include facilities for communication, agreements with other entities, etc.) should be located in the standards for certification. The certification requirements should indicate that entities have a responsibility to ‘maintain’ their capabilities.

Consistent Terminology

To the extent possible, does this reliability standard use a set of standard terms and definitions that are approved through the NERC reliability standards development process?

If the standard uses terms that are included in the NERC Glossary of Terms Used in Reliability Standards, then the term must be capitalized when it is used in the standard. New terms should not be added unless they have a ‘unique’ definition when used in a NERC reliability standard. Common terms that could be found in a college dictionary should not be defined and added to the NERC Glossary.

Are the verbs on the ‘verb list’ from the DT Guidelines? If not – do new verbs need to be added to the guidelines or could you use one of the verbs from the verb list?

Violation Risk Factors (Risk Factor)

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to

Standards Authorization Request Form

bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. A requirement that is administrative in nature;

or a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. A planning requirement that is administrative in nature.

Time Horizon

The drafting team should also indicate the time horizon available for mitigating a violation to the requirement using the following definitions:

- **Long-term Planning** — a planning horizon of one year or longer.
- **Operations Planning** — operating and resource plans from day-ahead up to and including seasonal.
- **Same-day Operations** — routine actions required within the timeframe of a day, but not real-time.
- **Real-time Operations** — actions required within one hour or less to preserve the reliability of the bulk electric system.
- **Operations Assessment** — follow-up evaluations and reporting of real time operations.

Violation Severity Levels

The drafting team should indicate a set of violation severity levels that can be applied for the requirements within a standard. ('Violation severity levels' replace existing 'levels of non-compliance.')

The violation severity levels must be applied for each requirement and may be combined to cover multiple requirements, as long as it is clear which requirements are included and that all requirements are included.

The violation severity levels should be based on the following definitions and the latest version of the VSL Development Guidelines:

- **Lower: mostly compliant with minor exceptions** — The responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more minor details.
- **Moderate: mostly compliant with significant exceptions** — The responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more significant elements.
- **High: marginal performance or results** — The responsible entity has only partially achieved the reliability objective of the requirement and is missing one or more significant elements.
- **Severe: poor performance or results** — The responsible entity has failed to meet the reliability objective of the requirement.

Replace, ‘Regional Reliability Organization’ with ‘Regional Entity’

Compliance Monitoring Period and Reset Timeframe

FERC has determined that the performance reset timeframe cannot be longer than a month.

Fill-in-the-blank Requirements

Do not include any ‘fill-in-the-blank’ requirements. These are requirements that assign one entity responsibility for developing some performance measures without requiring that the performance measures be included in the body of a standard – then require another entity to comply with those requirements.

Every reliability objective can be met, at least at a threshold level, by a North American standard. If we need regions to develop regional standards, such as in under-frequency load shedding, we can always write a uniform North American standard for the applicable functional entities as a means of encouraging development of the regional standards.

Requirements for Regional Reliability Organization

Do not write any requirements for the Regional Reliability Organization. Any requirements currently assigned to the RRO should be re-assigned to the applicable functional entity. If the requirement can only be performed at a regional level, assign the requirement to the Regional Entity, not the RRO.

Effective Dates

Must be 1st day of 1st quarter after entities are expected to be compliant – must include time to file with regulatory authorities and provide notice to responsible entities of the obligation to comply. If the standard is to be actively monitored, time for the Compliance Monitoring and Enforcement Program to develop reporting instructions and modify the Compliance Data Management System(s) both at NERC and Regional Entities must be provided in the implementation plan. Must be linked to the applicable regulatory authority approvals.

Associated Documents

We will delay populating this section of the standard with a list of ‘related’ standards because standards are all being changed and many will have new numbers. We should limit the references to those support documents that are useful in complying with the standard.

Functional Model Version 3

Review the requirements against the latest descriptions of the responsibilities and tasks assigned to functional entities as provided in pages 13 through 53 of the draft Functional Model Version 3.

Standard Authorization Request Form

Title of Proposed Standard	Operating Personnel Credentials (Project 2007-04)
Request Date	July 07, 2007
Revised	November 27, 2007

SAR Requestor Information	SAR Type (<i>Check a box for each one that applies.</i>)
Name David Carlson	<input type="checkbox"/> New Standard
Primary Contact David Carlson	<input checked="" type="checkbox"/> Revision to existing Standard: PER-003-0 Operating Personnel Credentials
Telephone (630) 691-4480 Fax (630) 691-4697	<input type="checkbox"/> Withdrawal of existing Standard
E-mail david.carlson@exeloncorp.com	<input type="checkbox"/> Urgent Action

Standards Authorization Request Form

Purpose (Describe the purpose of the standard — what the standard will achieve in support of reliability.)

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure they are enforceable as mandatory reliability standards with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results focused and unambiguous; the consequences of violating the requirements are clear.
3. Incorporate other general improvements described in the standards development work plan.
4. Consider comments received during the initial development of the standards and other comments received from ERO regulatory authorities and stakeholders.
5. Satisfy the standards procedure requirement for five-year review of the standards.

This SAR is intended to address the following:

- FERC Final Rule “Mandatory Reliability Standards for the Bulk-Power System, FERC Order 693” on the NERC standard PER-003
- To incorporate the necessary content, structure, and language to comply with the NERC standards process

Industry Need (Provide a detailed statement justifying the need for the proposed standard, along with any supporting documentation.)

PER-003 is a Version 0 standard. As the electric reliability organization begins enforcing compliance with reliability standards under Section 215 of the Federal Power Act in the United States and applicable statutes and regulations in Canada, the industry needs a set of clear, measurable, and enforceable reliability standards. The Version 0 standards, while a good foundation, were translated from historical operating and planning policies and guides that were appropriate in an era of voluntary compliance. The Version 0 standards and recent updates were put in place as a temporary starting point to stand up the electric reliability organization and begin enforcement of mandatory standards. However, it is important to update the standards in a timely manner, incorporating improvements to make the standards more suitable for enforcement and to capture prior recommendations that were deferred during the Version 0 translation.

Brief Description

This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

The standard will be revised to address the directives from FERC Order 693 and industry comments from Version 0.

The standard will also be revised to conform to the latest version of the Reliability Standards Development Procedure and the ERO Sanctions Guidelines. The standard drafting team will apply the Reliability Standard Review Guidelines when modifying the standard. (Attachment 1)

|

Standards Authorization Request Form

Detailed Description (Describe the proposed standard in sufficient detail to clearly define the scope in a manner that can be easily understood by others.)

This Version 0 Standard requires the Reliability Coordinator, Balancing Authority and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential.

During 2006, the standards staff received a request to develop an interpretation to clarify which operating personnel need to be NERC certified, and the interpretation did not meet stakeholder consensus. The standard needs to be modified to clarify which system operators need to be NERC certified. The existing NERC standard only requires certification of the system operators who work for the entities who register as the Reliability Coordinator, Transmission Operator and Balancing Authority. ~~This means that some system operators who monitor and control bulk power system facilities are not currently required to obtain a NERC certification credential. The certification requirements for local transmission control center operators and local generation control center operators need to be identified and then the standard needs to be modified to address their certification. The existing NERC Certification credentials are designed to test the knowledge and abilities of Reliability Coordinators, Balancing Authority, and Transmission Operator real-time operations personnel who are directly responsible for following NERC Standards. To fully address the needs of certifying the Local Control Center operators that are under the authority of an ISO/RTO, new certification credentials will need to be developed to address the specific job requirements of those positions. Specifically, the following directives and comments will be addressed:~~

FERC Order 693

- Specify minimum competencies that must be demonstrated to become and remain a certified operator
- Identify minimum competencies operating personnel must demonstrate to be certified
- Consider grandfathering certification requirements for transmission operator personnel as part of the standards development process

VO Industry Comments

- Clarification from the Drafting Team on the intended meaning of “current” in the Measures.
- R1 - Suggestion to be incorporated into the next version (version 1): The operating position is to be filled by a person holding the appropriate level certification. For Example; a person that is acting as the Reliability Coordinator will need to hold a Reliability Coordinator Operator Certification and a person acting as a Transmission Operator would need to hold a Transmission Operator Certification.
- R1 - Policy 8C Standard 1 is satisfactorily represented by Standard 032 Requirement 1. However, there was a one word change from "both" to "either", that can change the meaning of the statement, depending upon interpretation. In the interest of keeping the continuity between Policy 8C and Standard 32, the wording should be kept consistent and any changes be made through the normal process as part of version 1.
- R1 - Exelon Corporation suggests that Version 1 of this Standard be initiated to address the requirement to have NERC Certified Operators that perform functions that are formally delegated similar to the requirement of Policy 9B Req. 3.
- Measure could be that one has documentation of Certification of all personnel.
- M1.a indicates that “Trainees may perform critical tasks only under the direct, continuous supervision and observation . . . “What constitutes a “critical task?” What duties performed in a typical control center are not “critical?” Inclusion of “critical tasks” is most likely a reference to the Critical Task List that has been established to guide operators in determining which of the four certification credentials (BIO, TO, BIT, RO) they are required to attain.
- The OTS suggests the reference to “critical tasks” be removed to prevent possible interpretation that the uncertified operator can perform routine tasks but not “critical” tasks. Or, change it to reference the Critical Task List of the credential and include it in the Standard.
- **COMPLIANCE MONITORING PROCESS** - It isn't clear what is meant by “previous calendar year staffing plan.” A “staffing plan” sounds like a plan for staffing – if so, what does that have to do with filling operating positions with certified operators? A simple determination of which positions require certified operators should be sufficient. Need to modify to be clear.

Standards Authorization Request Form

Reliability Functions

The Standard will Apply to the Following Functions (Check box for each one that applies.)		
<input checked="" type="checkbox"/>	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
<input checked="" type="checkbox"/>	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input checked="" type="checkbox"/>	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input type="checkbox"/>	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input type="checkbox"/>	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input checked="" type="checkbox"/>	Transmission Owner	Owns and maintains transmission facilities.
<input checked="" type="checkbox"/>	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input type="checkbox"/>	Distribution Provider	Delivers electrical energy to the End-use customer.
<input checked="" type="checkbox"/>	Generator Owner	Owns and maintains generation facilities.
<input checked="" type="checkbox"/>	Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/>	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/>	Market Operator	Interface point for reliability functions with commercial functions.
<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Standards Authorization Request Form

Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
<input type="checkbox"/>	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk electric systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input checked="" type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all the following Market Interface Principles? <i>(Select "yes" or "no" from the drop-down box.)</i>	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. An Organization Standard shall not give any market participant an unfair competitive advantage. Yes	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	
5. An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes	

Standards Authorization Request Form

Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Differences

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
SERC	
RFC	
SPP	
WECC	

Attachment 1 - Standard Review Guidelines

Applicability

Does this reliability standard clearly identify the functional classes of entities responsible for complying with the reliability standard, with any specific additions or exceptions noted? Where multiple functional classes are identified is there a clear line of responsibility for each requirement identifying the functional class and entity to be held accountable for compliance? Does the requirement allow overlapping responsibilities between Registered Entities possibly creating confusion for who is ultimately accountable for compliance?

Does this reliability standard identify the geographic applicability of the standard, such as the entire North American bulk power system, an interconnection, or within a regional entity area? If no geographic limitations are identified, the default is that the standard applies throughout North America.

Does this reliability standard identify any limitations on the applicability of the standard based on electric facility characteristics, such as generators with a nameplate rating of 20 MW or greater, or transmission facilities energized at 200 kV or greater or some other criteria? If no functional entity limitations are identified, the default is that the standard applies to all identified functional entities.

Purpose

Does this reliability standard have a clear statement of purpose that describes how the standard contributes to the reliability of the bulk power system? Each purpose statement should include a value statement.

Performance Requirements

Does this reliability standard state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest?

Does each requirement identify who shall do what under what conditions and to what outcome?

Measurability

Is each performance requirement stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by that requirement?

Does each performance requirement have one or more associated measures used to objectively evaluate compliance with the requirement?

If performance results can be practically measured quantitatively, are metrics provided within the requirement to indicate satisfactory performance?

Technical Basis in Engineering and Operations

Is this reliability standard based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that particular field?

Completeness

Is this reliability standard complete and self-contained? Does the standard depend on external information to determine the required level of performance?

Consequences for Noncompliance

In combination with guidelines for penalties and sanctions, as well as other ERO and regional entity compliance documents, are the consequences of violating a standard clearly known to the responsible entities?

Clear Language

Is the reliability standard stated using clear and unambiguous language? Can responsible entities, using reasonable judgment and in keeping with good utility practices, arrive at a consistent interpretation of the required performance?

Practicality

Does this reliability standard establish requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter?

Capability Requirements versus Performance Requirements

In general, requirements for entities to have ‘capabilities’ (this would include facilities for communication, agreements with other entities, etc.) should be located in the standards for certification. The certification requirements should indicate that entities have a responsibility to ‘maintain’ their capabilities.

Consistent Terminology

To the extent possible, does this reliability standard use a set of standard terms and definitions that are approved through the NERC reliability standards development process?

If the standard uses terms that are included in the NERC Glossary of Terms Used in Reliability Standards, then the term must be capitalized when it is used in the standard. New terms should not be added unless they have a ‘unique’ definition when used in a NERC reliability standard. Common terms that could be found in a college dictionary should not be defined and added to the NERC Glossary.

Are the verbs on the ‘verb list’ from the DT Guidelines? If not – do new verbs need to be added to the guidelines or could you use one of the verbs from the verb list?

Violation Risk Factors (Risk Factor)

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to

Standards Authorization Request Form

bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. A requirement that is administrative in nature;

or a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. A planning requirement that is administrative in nature.

Time Horizon

The drafting team should also indicate the time horizon available for mitigating a violation to the requirement using the following definitions:

- **Long-term Planning** — a planning horizon of one year or longer.
- **Operations Planning** — operating and resource plans from day-ahead up to and including seasonal.
- **Same-day Operations** — routine actions required within the timeframe of a day, but not real-time.
- **Real-time Operations** — actions required within one hour or less to preserve the reliability of the bulk electric system.
- **Operations Assessment** — follow-up evaluations and reporting of real time operations.

Violation Severity Levels

The drafting team should indicate a set of violation severity levels that can be applied for the requirements within a standard. ('Violation severity levels' replace existing 'levels of non-compliance.')

The violation severity levels must be applied for each requirement and may be combined to cover multiple requirements, as long as it is clear which requirements are included and that all requirements are included.

The violation severity levels should be based on the following definitions and the latest version of the VSL Development Guidelines:

- **Lower: mostly compliant with minor exceptions** — The responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more minor details. ~~Equivalent score: more than 95% but less than 100% compliant.~~
- **Moderate: mostly compliant with significant exceptions** — The responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more significant elements. ~~Equivalent score: more than 85% but less than or equal to 95% compliant.~~
- **High: marginal performance or results** — The responsible entity has only partially achieved the reliability objective of the requirement and is missing one or more significant elements. ~~Equivalent score: more than 70% but less than or equal to 85% compliant.~~
- **Severe: poor performance or results** — The responsible entity has failed to meet the reliability objective of the requirement. ~~Equivalent score: 70% or less compliant.~~

Compliance ~~Monitor~~ Enforcement Authority

Replace, ‘Regional Reliability Organization’ with ‘Regional Entity’

Compliance Monitoring Period and Reset Timeframe

FERC has determined that the performance reset timeframe cannot be longer than a month.

Fill-in-the-blank Requirements

Do not include any ‘fill-in-the-blank’ requirements. These are requirements that assign one entity responsibility for developing some performance measures without requiring that the performance measures be included in the body of a standard – then require another entity to comply with those requirements.

Every reliability objective can be met, at least at a threshold level, by a North American standard. If we need regions to develop regional standards, such as in under-frequency load shedding, we can always write a uniform North American standard for the applicable functional entities as a means of encouraging development of the regional standards.

Requirements for Regional Reliability Organization

Do not write any requirements for the Regional Reliability Organization. Any requirements currently assigned to the RRO should be re-assigned to the applicable functional entity. If the requirement can only be performed at a regional level, assign the requirement to the Regional Entity, not the RRO.

Effective Dates

Must be 1st day of 1st quarter after entities are expected to be compliant – must include time to file with regulatory authorities and provide notice to responsible entities of the obligation to comply. If the standard is to be actively monitored, time for the Compliance Monitoring and Enforcement Program to develop reporting instructions and modify the Compliance Data Management System(s) both at NERC and Regional Entities must be provided in the implementation plan. Must be linked to the applicable regulatory authority approvals.

Associated Documents

We will delay populating this section of the standard with a list of ‘related’ standards because standards are all being changed and many will have new numbers. We should limit the references to those support documents that are useful in complying with the standard. If there are standards that are referenced within a standard, list the full name and number of the standard under the section called, ‘Associated Documents’.

Functional Model Version 3

Review the requirements against the latest descriptions of the responsibilities and tasks assigned to functional entities as provided in pages 13 through 53 of the draft Functional Model Version 3.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:



January 2, 2008

TO: REGISTERED BALLOT BODY

Ladies and Gentlemen:

Announcement: Comment Period Opens

Second Draft of Certifying System Operators SAR Posted for 30-day Comment Period

The second draft of the SAR for [Project 2007-04](#) (Certifying System Operators — Operating Personnel Credentials) has been posted for a 30-day comment period from January 2–31, 2008.

This SAR for Project 2007-04 — Certifying System Operators proposes modifying PER-003-0 — Operating Personnel Credentials to address relevant directives from FERC Order 693, to address Version 0 comments from stakeholders, and to incorporate the content, structure, and language to bring the standard into conformance with the Reliability Standards Development Procedure and the ERO Sanctions Guidelines.

Please use this [comment form](#) to submit comments on this SAR.

Standards Development Procedure

The NERC balloting procedures are described in the [Reliability Standards Development Procedure](#), which contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

Please send questions to Maureen Long at maureen.long@nerc.net, or call 813-468-5998.

Sincerely,

Maureen E. Long

Maureen E. Long
Standards Process Manager

cc: Registered Ballot Body Registered Users
Standards Mailing List
NERC Roster

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	William J. Smith	
Organization:	Allegheny Power	
Telephone:	(724) 838-6552	
E-mail:	wsmith1@alleghenypower.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: Allegheny Power agrees with the modifications that eliminates the applicability of this standard to GOPs and LCCs. However NERC should specify that it is the responsibility of the ISO/RTOs to certify those entities. The minimum requirements for those certification program should be specified in a NERC Standard to ensure consistant certification through out the entire grid for those entities.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Kirit S. Shah	
Organization:	Ameren	
Telephone:	(314)554-3542	
E-mail:	kshah@ameren.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
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Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

- Yes
- No

Comments: Generator Operators, Transmission Operators, Balancing Authority Operators, and Reliability Coordinators have the primary responsibility for the real-time reliability of the Bulk Electric System. Each of these entities must have provincial knowledge of their systems AND must have knowledge of how their systems fit in with the overall interconnected system*. While it seems nice to think that TOPs, BAs, and RCs can effectuate presumptive actions at a GOP, there is no doubt that most such actions are, in fact, responsive. It is precisely for this reason that NERC certifications exist. And if certifications are necessary for TOP, BA, and RCs then it should be needed for GOP. However, it is equally clear that the current certifications (which have, for all intents and purposes, been in place before the functional model was developed) do not offer a Generator Operator certification that is appropriate for the requirements put forth in the NERC standards and needed for all Generator Operators. Rather than remove the certification requirement for GOPs, it is incumbent to develop the PROPER certification for GOPs. Such certification should only include generation systems and their impact on the Bulk Electric System. We envisage that such certification would entail perhaps 1/3 of the material in a BA/TOP certification and would carry with it a reduced set of certification hours, perhaps 50-90 hours of renewal training accumulated over three years for the review of Standards and Bulk Electric System concepts. We would also expect that each GO would determine, based on their organizational structure, for which positions certification is appropriate.

*TOPs, BAs, and RCs do not know what traps may be created by a GOP(until it is too late). For example, a GOP might be having difficulty with a control function which is limiting output to less than maximum. The problem seems to be related to frequency response. Is there a possibility that a unknowing GOP would disable the droop component to maximize output until they can get the control problem fixed? If yes, such action would then obviously undermine BES reliability. Having the GOP function certified would obviate this.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Thad K. Ness
Organization:	AEP
Telephone:	614-716-2053
E-mail:	tkness@aep.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/> 3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input checked="" type="checkbox"/> 5 — Electric Generators
<input type="checkbox"/> SERC	<input checked="" type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

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Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: Due to the potential impact of a Generation Operator's actions on the ability of the other Functional Entities to perform their functions in maintaining reliable operation of the Bulk Electric System, it would be appropriate to include NERC certification for the Generator Operator. In developing the Generator Operator certification, it should be understood that the need for maintaining at least a high level of demonstrated understanding of the effect of each Functional Entity's impact on the other reliability functions. From the real-time reliable operating perspective, the related impact for maintaining reliability among the responsible Functional Entities cannot be separated, because of the inherent effect each one has on the other.

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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name: Chris Norton		
Organization: American Municipal Power - Ohio, Inc.		
Telephone: (614)337-6222		
E-mail: cnorton@amp-ohio.org		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input checked="" type="checkbox"/>	4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

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Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: AMP-Ohio agrees with eliminating the current requirements as they currently apply to generator operators. To the extent that a certification or training standard is applied to generator operators it should be tailored to the functions and activities that generator operators actually conduct. Generator operator personnel should not be required to test on detailed functions and activities that take place at the Reliability Coordinator, Balancing Authority or Transmission Operator. In other words generator operators should not be required to pass the balancing authority, transmission operator or reliability coordinator test. A new test should be developed that is targeted towards generator operators and the functions they actually perform.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Jason Shaver	
Organization:	American Transmission Co.	
Telephone:	262 506 6885	
E-mail:	jshaver@atcllc.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
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Comment Form — Certifying System Operators SAR (Project 2007-04)

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Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: ATC believes that any system operator who is allowed to take independent action on the bulk power system should be NERC certified.

By removing this provision from the SAR is the Standard Drafting Team saying that local control center's system operators do not take independent action on the bulk power system?

If this is the case then we agree with the changes to the SAR.

Additional comments:

Issue 1:

The SAR needs to be expanded to include NERC Standards PER-001 and PER-002. Doing so is the only way to insure the development of a comprehensive set of personnel standards.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	John Neagle	
Organization:	Associated Electric Cooperative Inc.	
Telephone:	(417) 885-9233	
E-mail:	jneagle@aeci.org	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
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Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

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Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Allen Czerkiewicz
Organization:	Northern Star Generation services, Inc.
Telephone:	863-860-1986
E-mail:	allen.czerkiewicz@nsgen.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 – Transmission Owners
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<input type="checkbox"/> MRO	<input type="checkbox"/> 3 – Load-serving Entities
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Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name: N/A

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

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1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

- Yes
- No

Comments: The Certifying System Operators Drafting Team properly deleted the originally-proposed requirement for certification of generator operators and local control center operators. There is no justification for any such requirement. First, there has been no NERC proceeding establishing whether there is any need for such uniform certification. Second, the original PER-003 certification proposal was the subject of a great deal of disagreement within the industry, and presented a litany of implementation difficulties, which FERC recognized in Order No. 693 (at para. 1395); in fact, the FERC acknowledged that certain elements of the proposed personnel certification plan presented implementation difficulties, and did not originally propose to require generator operator personnel to be NERC-certified (at para. 1407). Third, the PER-003 proposed certifications were never agreed to by a consensus of the Bulk Power System Users. Fourth, the usefulness of any such certification requirement is questionable, particularly since the physical equipment, communications systems, and controls in place at different generators widely differs. The captioned filers strongly support the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators.

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	J. Andrew Dodge
Organization:	Baltimore Gas and Electric Company
Telephone:	410-597-7210
E-mail:	JAndrew.Dodge@bge.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/> 3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
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Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

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- Yes
 No

Comments: We recommend that the revised standard be clear as to who is responsible at the requirement level as well. For example, Transmission Operator delegated tasks to Transmission Owners/Local Control Centers should not require Transmission Owner System Operators to be NERC certified. The Transmission Operator should be responsible for ensuring that the Transmission Owner/Local Control Center System Operators are qualified to perform their delegated tasks.

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Tony Kroskey
Organization:	Brazos Electric Power Cooperative
Telephone:	254-750-6357
E-mail:	tkroskey@brazoselectric.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
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Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

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Yes

No

Comments:

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Brad Calhoun
Organization:	CenterPoint Energy
Telephone:	713-207-2744
E-mail:	brad.calhoun@CenterPointEnergy.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
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Contact Organization:

Contact Segment:

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- Yes
 No

Comments: CenterPoint Energy strongly believes that the proposed modifications to the SAR are appropriate and consistent with FERC's determination in Order No. 693 paragraph 1407 "not to require generator operators and transmission operators at local control centers to be NERC Certified at this time".

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Alan Gale
Organization:	City of Tallahassee
Telephone:	(850) 891-3025
E-mail:	alan.gale@talgov.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 – Transmission Owners
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Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Steve Rose	
Organization:	City Water Light & Power	
Telephone:	217-321-1392	
E-mail:	steve.rose@cwlp.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input checked="" type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input checked="" type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

- Yes
- No

Comments: Transmission Operators, Balancing Authority Operators, Reliability Coordinators, and Generator Operators must have knowledge of these systems and the Bulk Electric System. TOP, BA, and RCs NERC Certification should also extend to GOP. A proper certification for GOP is needed rather than remove the certification requirement for GOP's. In an effort to reduce the burden of GOP certification on the entire Bulk Electric System the proper GOP certification should also have a requirement of a generator capacity connected to the Bulk Electric System. For example all generators at 100 MW or greater would be required to have the new GOP NERC Certification. The new GOP requirement would also extend to generators less than 100 MW that are determined to be "Critical Generators" or "Black Start Units" by Transmission Owner, Balancing Authority, Reliability Coordinator and NERC Region to the Bulk Electric System. All other smaller generators would be excluded from the GOP NERC Certification. The PROPER GOP Certification requirement would achieve a higher level of competency and increase the level Bulk Electric System situational awareness by the GOP which is the intent of the NERC Standards.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Karl Kohlrus	
Organization:	City Water, Light & Power	
Telephone:	217-321-1391	
E-mail:	karl.kohlrus@cwlp.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input checked="" type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

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Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

Yes

No

Comments: I agree with the changes to eliminate the requirements for NERC certification of generator operators, but not for eliminating the requirement for certification of local control system operators.

There are many sizes and types of generator operators. Where would you draw the line? Voltage? Size? Type? Our system has a 128 MW generator connected to the 138 kV system, whereas a neighbor has a 260 MW generator connected to the 69 kV system. There are thousands of personnel who operate various sizes and types of generators. Requiring NERC certification for all of them would be an administrative burden and not add to reliability.

Certifying local control center operators, however, should be kept. Most problems start and are addressed locally. If untrained personnel are operating the system, this could result in reliability problems. For example, the 24 BAs in MISO, many of which are also TOPs, will be operating as Local Balancing Authorities after the MISO Ancillary Services Market begins operation. If a local TOP operates 100 kV or higher facilities, that person should be certified.

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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name:	Russell A. Noble	
Organization:	Cowlitz County PUD No. 1	
Telephone:	360-577-7541	
E-mail:	rnoble@cowlitzpud.org	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input checked="" type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Jalal Babik
Organization:	Dominion Resources Inc.
Telephone:	8042734109
E-mail:	Jalal.Babik@dom.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input checked="" type="checkbox"/> 5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
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Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

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- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name:	Greg Rowland	
Organization:	Duke Energy	
Telephone:	704-382-5348	
E-mail:	gdrowland@dukeenergy.com	
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)	
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
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Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Greg Mason
Organization:	Dynegy
Telephone:	217 872-2301
E-mail:	gregory.mason@dynegy.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input checked="" type="checkbox"/> 5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
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Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: The Certifying System Operators SAR Drafting Team correctly cited FERC Order 693 and the NERC Functional Model Version 3 definitions as key reasons for eliminating any requirements for NERC certification of generator operators and local control center operators.

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	H. Vann Weldon
Organization:	ERCOT Inc.
Telephone:	512-248-3133
E-mail:	vweldon@ercot.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/> 5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
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Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

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Yes

No

Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Chris Scanlon	
Organization:	Exelon	
Telephone:	630-576-6926	
E-mail:	christopher.scanlon@exeloncorp.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
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<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
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- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

FERC final Rule 693 does not require certification for Local Control Center Transmission Owner / Operators or Generation Plant or Control Center Operators. Under Commission Determination, Paragraph 1407 of Order 693, Commissioners state " The Commission understands these (industry) concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERC certified at this time". Exelon agrees with FERC that it is the Balancing Authority, Reliability Coordinator and Transmission Operator, entities who have been certified by NERC per the guidelines in Appendix 5, Organization Registration and Certification of the NERC Rules Of Procedure, to whom the Standard should apply.

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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name:	Sam Ciccone	
Organization:	FirstEnergy Corp.	
Telephone:	(330) 252-6383	
E-mail:	sciccone@firstenergycorp.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
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<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
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Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*
Dave Folk	FE FERC Compliance		
Doug Hohlbaugh	FE FERC Compliance		
Larry Hartley	FE Solutions		

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

- Yes
- No

Comments: The modifications made to the SAR to eliminate the NERC certification requirements for Generator Operators and local control center operators is consistent with the FERC view of the matter as communicated in Order 693. We agree that certification should be focused on expectations, tailored towards specific job functions, and reflect the impact that an operators actions can have on the reliability of the Bulk Electric System.

Local control center operators that have at their unrestrained control the ability to perform switching on the Bulk Electric System, to shed load, or to restore load through the use of supervisory control or through the direct or indirect communication with a field switchman under some circumstances can have a profound impact on the reliability of the Bulk Electric System and should be certified. However, local control center operators in remote locations that are prohibited from developing and taking independent action during a normal, emergency or restoration conditions should not be required to be certified.

The Generator Operator (the operator at the controls of a plant or unit) should not be required to be certified. However, the Generator Operator (the operator on duty at a centrally located control center with control over a fleet of generators located at two or more power plants) can have a profound impact on the reliability of the Bulk Electric System and should be certified.

Both the Generator Operator and local control center operator requiring certification as outlined above should be subject to the certification requirements of a reliability organization such as NERC or a Regional Entity. These entities have the authority to develop and enforce standards compelling certification for all personnel with an impact on reliability.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Alessia Dawes
Organization:	Hydro One Networks
Telephone:	416-345-5286
E-mail:	alessia.dawes@hydroone.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/> 3 – Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/> 5 – Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/> 6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 – Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: Generator Operators or Local Control Centre Operators could operate a BES element. If so, they should require NERC certification.

Similar to how Generator Operators are referred to in the proposed EOP-005-2 on System Restoration and Blackstart Resources - Operations, include Generator Operators and Local Control Center Operators in the PER-003-0 standard Applicability section. In the Requirements section, write "Each Generator Operator who operates a Bulk Electricity System element ..."

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Ron Falsetti	
Organization:	IESO	
Telephone:	905-855-6187	
E-mail:	ron.falsetti@ieso.ca	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: The IESO supports the SAR DT position not to mandate certification of local control centers (LCC) and Generator Operators.

The Generator Operator and the LCC Operator should not be subject to NERC certification requirements since they do not have the decision-making authority for the real-time operation of the Bulk-Power System.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Kathleen Goodman	
Organization:	ISO New England	
Telephone:	(413) 535-4111	
E-mail:	kgoodman@iso-ne.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: ISO New England supports the position not to mandate certification of LLCs and Generator Operators.

ISO New England believes that NERC standards only apply to Registered Entities identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and the definition of what exactly a local control center is varies across the country, creating a Standard that is applicable to this undefined entity would be problematic.

Given the divergence in both areas of operations and technology to be operated, ISO New England believes that the best approach is to not require Generator Operator certification, but leave this responsibility to the plant/station owners who have a strong business purpose for ensuring their operating personnel are proficient.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name: ISO/RTO Council (IRC)

Lead Contact: Charles Yeung

Contact Organization: SPP

Contact Segment: 2

Contact Telephone: (832) 724-6142

Contact E-mail: cyeung@spp.org

Additional Member Name	Additional Member Organization	Region*	Segment*
Patrick Brown	PJM	RFC/SERC	2
Jim Castle	NYISO	NPCC	2
Ron Falsetti	IESO	NPCC	2
Matt Goldberg	ISO-NE	NPCC	2
Brent Kingsford	CAISO	WECC	2
Anita Lee	AESO	WECC	2
Steve Myers	ERCOT	ERCOT	2
Bill Phillips	NISO	RFC/SERC/MRO	2

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: The IRC supports the SAR DT position not to mandate certification of LLCs and Generator Operators.

The DT's position as regards to LLC's is consistent with the IRC's position that NERC standards only apply to Functional Entities identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and understanding of what exactly a local control center is varies across the country, registration of this undefined group would be inappropriate.

The concept of not mandating NERC-certification of Generator Operators (that would have concentrated on the few generalized NERC standards that apply to operating generators) is consistent with the position that a one-size fits all approach for generator operators may not be the best approach. The SAR DT position allows a decentralized but more focused program approach for the areas in which the operators must work.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Steve Rainwater
Organization:	Lower Colorado River Authority
Telephone:	512-482-6295
E-mail:	steve.rainwater@lcra.org
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/> 5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input checked="" type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

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Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: Local control center operator needs to be defined. What exactly is a "local control center operator"? Will that mean that Transmission Operators in ERCOT will not need to be NERC certified since ERCOT itself performs the control area function? Also, in the LCRA system there are numerous transmission lines that are owned by COOP's but are operated by LCRA. Does this mean that distribution operators at the COOP's can operate their transmission lines without being certified, yet an LCRA transmission operator would be required to have a certification? As you can see much clarification is needed here. In addition, generator operators can have a major impact on the transmission system, yet their training may or may not address the transmission system itself. I spent 9 years in power plant operations, yet knew relatively little about the transmission system in relation to the detailed knowledge I possessed with respect to plant operations. Since coming to work in a transmission control center it has been my experience that transmission operators know much more concerning generation than generator operators know about transmission. This is most likely due to the fact that transmission operators, at LCRA anyhow, tend to have more prior work experience, and more importantly, the NERC Certification Program and Continuing Education Program stress that knowledge. The same could be done for generator operators in my opinion.

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Tom Foreman
Organization:	Lower Colorado River Authority
Telephone:	512-473-3387
E-mail:	Generation_Compliance@lcra.org
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input type="checkbox"/> 1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 – Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input checked="" type="checkbox"/> 5 – Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/> 6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 – Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 – Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 – Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region *	Segment *

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Joseph DePoorter
Organization:	Madison Gas and Electric Company
Telephone:	608-252-1581
E-mail:	jdepoorter@mge.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input checked="" type="checkbox"/> 4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/> 5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Leo St. Hilaire	
Organization:	Manitoba Hydro (MHEB)	
Telephone:	204-487-5326	
E-mail:	lasthilaire@hydro.mb.ca	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
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Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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Comment Form — Certifying System Operators SAR (Project 2007-04)

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments: The revisions to the SAR better represent the intent of the PER-003.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
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<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name: Midwest ISO Stakeholders Standards Collaborators

Lead Contact: Marie Knox

Contact Organization: Midwest ISO

Contact Segment: 2

Contact Telephone: 317-249-5264

Contact E-mail: mknox@midwestiso.org

Additional Member Name	Additional Member Organization	Region *	Segment *
Jason Marshall	Midwest ISO	RFC, SERC, MRO, SPP	2
Barb Kedrowski	We Energies	RFC	5
Jim Cryulewski	JDRJC Associates	RFC	8
Carol Gerou	Minnesota Power	MRO	1,3,5
Alisha Anker	CWLP	SERC	1,3,5

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

- Yes
- No

Comments: Training should be focused on expectations and tailored towards specific job functions. The plant operator and the local control center operator should not be subject to NERC certification requirements. It is not necessary for operators located in remote locations, who are not primarily responsible for the real-time operation of the Bulk-Power System, to be certified in real-time operations Reliability Standards because they are not involved in the functions in which this disciplined training would be advantageous. There is an exception though. Some entities have local control centers that actually do work, such as switching, that the main control center would normally do. To the extent this happens, the local control center operators should be certified. If it is done under the supervision of a NERC certified operator, no certification would be needed.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name: MRO NSRS

Lead Contact: Michael Brytowski

Contact Organization: MRO

Contact Segment: 10

Contact Telephone: 651-855-1728

Contact E-mail: mj.brytowski@midwestreliability.org

Additional Member Name	Additional Member Organization	Region *	Segment *
Neal Balu	WPA	MRO	3,4,5,6,
Terry Bilke	MISO	MRO	2
Robert Coish	MHEB	MRO	1,3,5,6
Carol Gerou	MP	MRO	1,3,5,6
Jim Haigh	WAPA	MRO	1,6
Ken Goldsmith	ALTW (TDU)	MRO	4
Tom Mielnik	MEC	MRO	1,3,5,6
Pam Oreschnick	XCEL	MRO	1,3,5,6
Dave Rudolph	BEPC	MRO	1,3,5,6
Eric Ruskamp	LES	MRO	1,3,5,6
Joseph Knight	GRE	MRO	1,3,5,6
Larry Brusseau	MRO	MRO	10
Michael Brytowski	MRO	MRO	10
27 additional members	not mentioned above	MRO	10

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: Following the NERC functional model. As long as an entity is not performing a critical function. ie: Reliability Coordinator, Transmission Operator, and Balancing Authority. The term "Local Control Center" is not a defined NERC function and is unclear what is meant by "Local Control Center".

General Comment:

On page 3 of the SAR under the V0 Industry Comments section, the second comment reads "R1 - Suggestion to be incorporated into next version (version 1): ...". This comment further states "The operation position is to be filled by a person holding the appropriate level certification." The MRO believes the example given after this sentence to explain this sentence does not fully clarify who might hold an appropriate level certificate. The MRO believes the example should be expanded to include other appropriate level certificates such that the example should read "For example, a person that is acting as the Reliability Coordinator will need to hold a Reliability Coordinator operator certificate and a person acting as a Transmission Operator would need to hold a Transmission Operator certificate, a Balancing Interchange Transmission Operator certificate, and/or Reliability Coordinator certificate."

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name:	Rick Koch	
Organization:	Nebraska Public Power District	
Telephone:	402-845-5210	
E-mail:	rlkoch@nppd.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	
<input type="checkbox"/> SERC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SPP	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> WECC	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	8 — Small Electricity End Users
	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: I believe that NERC certification of GOP and LCC operating personnel is appropriate if and only if a new certification is developed that is relevant to their job functions and their ability to impact the BES. In my opinion, the requirement for NERC certification of generator operators and local control center operators should be removed from Standard PER-003 until the new certification(s) have been developed and approved. Including the requirement at this time would result in the need to certify to one of the existing certifications. Reintroducing the requirement after approval of the new certification would allow owners, operators, and users of the bulk power system to know exactly what is being proposed before making it mandatory and enforceable.

An alternate approach would be to retain the requirement with a "phased-in" implementation schedule where the development of the appropriate certification(s) is the first phase. The risk of this approach is that an unknown certification becomes mandatory and enforceable. This is similar to writing a blank check.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	David Mahlmann	
Organization:	NYISO	
Telephone:	518-356-6110	
E-mail:	dmahlmann@nyiso.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Background Information

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Ted Pappas
Organization:	New York State Reliability Council, Reliability Rules Subcommittee
Telephone:	516-545-4011
E-mail:	tpappas@service.lipower.org
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 – Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 – RTOs and ISOs
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Background Information

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Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Rick White
Organization:	Northeast Utilities
Telephone:	860-665-2572
E-mail:	whitefb@nu.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
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<input type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
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<input type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 — Regional Reliability Organizations and Regional Entities

Background Information

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

- Yes
- No

Comments: We do agree Generator Operators need not be NERC certified. However, the SAR should recognize NERC certification of Transmission Operators in a Local Control Center (LCC) may be appropriate. Several New England LCCs are registered TOPs who run studies, monitor the system, switch components in & out of service including reactive resources, address real-time contingencies including load shedding, perform system restoration, have backup centers, direct other control centers to take action, etc. All actions/activities are closely coordinated with the RC/BA who is also registered as a TOP. Responsibilities and chain-of-command are documented and clear. It is recognized other Areas may not allow LCCs to take action alone, they act only when directed. The SAR needs to accomodate the different models that exist. Any operator that can take unilateral action on the bulk power system should be NERC certified. The revised "clean" SAR does not appear to specifically prevent LCCs from having certified operators, but this modification implies that could be the case.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Douglas A. Jensen
Organization:	Vandolah Power Company L.L.C.
Telephone:	863-773-2277 x2222
E-mail:	doug.jensen@nsgsen.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 – Transmission Owners
<input checked="" type="checkbox"/> FRCC	<input type="checkbox"/> 2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 – Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 – Transmission-dependent Utilities
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<input type="checkbox"/> SERC	<input type="checkbox"/> 6 – Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 – Large Electricity End Users
<input checked="" type="checkbox"/> WECC	<input type="checkbox"/> 8 – Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 – Federal, State, Provincial Regulatory or other Government Entities
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Background Information

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: The Certifying System Operators Drafting Team properly deleted the originally-proposed requirement for certification of generator operators and local control center operators. There is no justification for any such requirement. First, there has been no NERC proceeding establishing whether there is any need for such uniform certification. Second, the original PER-003 certification proposal was the subject of a great deal of disagreement within the industry, and presented a litany of implementation difficulties, which FERC recognized in Order No. 693 (at para. 1395); in fact, the FERC acknowledged that certain elements of the proposed personnel certification plan presented implementation difficulties, and did not originally propose to require generator operator personnel to be NERC-certified (at para. 1407). Third, the PER-003 proposed certifications were never agreed to by a consensus of the Bulk Power System Users. Fourth, the usefulness of any such certification requirement is questionable, particularly since the physical equipment, communications systems, and controls in place at different generators widely differs. The captioned filers strongly support the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	George Brady	
Organization:	Ohio Valley Electric Corporation	
Telephone:	740-289-7297	
E-mail:	gbrady@ovec.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
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<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Stan Southers / Ellis Rankin
Organization:	Oncor Electric Delivery Company LLC
Telephone:	214-486-2084 / 214-743-6825
E-mail:	stan.southers@oncor.com / erankin@oncor.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: Oncor endorses the modifications made to the previous version of this draft standard.

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Individual Commenter Information (Complete this page for comments from one organization or individual.)		
Name: James T Murray		
Organization: ORLANDO COGEN LIMITED (NORTHERNSTAR GENERATION SERVICE)		
Telephone: 407-851-1350		
E-mail: jim.murray@nsgen.com		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input checked="" type="checkbox"/> FRCC	<input type="checkbox"/>	2 – RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 – Load-serving Entities
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	<input type="checkbox"/>	10 – Regional Reliability Organizations and Regional Entities

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: The Certifying System Operators Drafting Team properly deleted the originally-proposed requirement for certification of generator operators and local control center operators. There is no justification for any such requirement. First, there has been no NERC proceeding establishing whether there is any need for such uniform certification. Second, the original PER-003 certification proposal was the subject of a great deal of disagreement within the industry, and presented a litany of implementation difficulties, which FERC recognized in Order No. 693 (at para. 1395); in fact, the FERC acknowledged that certain elements of the proposed personnel certification plan presented implementation difficulties, and did not originally propose to require generator operator personnel to be NERC-certified (at para. 1407). Third, the PER-003 proposed certifications were never agreed to by a consensus of the Bulk Power System Users. Fourth, the usefulness of any such certification requirement is questionable, particularly since the physical equipment, communications systems, and controls in place at different generators widely differs. The captioned filers strongly support the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Larry Larson
Organization:	Otter Tail Power Company
Telephone:	218-739-2809
E-mail:	llarson@otpc.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input checked="" type="checkbox"/> 3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input checked="" type="checkbox"/> 5 — Electric Generators
<input type="checkbox"/> SERC	<input checked="" type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA — Not Applicable	<input type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 — Regional Reliability Organizations and Regional Entities

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: GOPs should have proper GOP certification that focuses on their duties with an understanding of the impact on BES reliability. Similarly, LCCs should have LCC certification that focuses on their specific duties and their impact on BES reliability. We believe NERC certification is an important part of reliable operations but expect that the industry would be better served with specific certification which properly address duties of GOPs and LCCs since the functional model clearly draws a line between the duties of those two entities and those of a BA. The NERC Certification is a "baseline" of knowledge demonstrated through a written exam. We encourage others to not only endorse this certification need, but also to use this as a "baseline" for their training programs. With the turn-over of System Operations Personnel soon to come to our industry it is essential we maintain a basic level of knowledge among all personnel that effect the operation of the BES.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
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<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
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<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
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	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Lauri Jones	
Organization:	Pacific Gas and Electric Company	
Telephone:	415-973-0918	
E-mail:	llj8@pge.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input checked="" type="checkbox"/>	7 — Large Electricity End Users
<input checked="" type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
(Project 2007-04)**

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Patrick Brown
Organization:	PJM Interconnection
Telephone:	610-666-4597
E-mail:	brownp@pjm.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input type="checkbox"/> 5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 — Regional Reliability Organizations and Regional Entities

Background Information

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: PJM agrees with this modification. We, as do many other entities, have an internal certification process for GOs and LCCs that are specific to the PJM system.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Annette M. Bannon	
Organization:	PPL Generation, LLC	
Telephone:	610-774-2064	
E-mail:	ambannon@pplweb.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input checked="" type="checkbox"/> SERC	<input checked="" type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input checked="" type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name: PPL Supply
Lead Contact: Annette Bannon
Contact Organization: PPL Generation
Contact Segment: 5, 6
Contact Telephone: 610-774-2064
Contact E-mail: ambannon@pplweb.com

Additional Member Name	Additional Member Organization	Region*	Segment*
Mark Bryant	PPL Eastern Fossil & Hydro	RFC	5
		NPCC	5
Joe Kisela	PPL Eastern Fossil & Hydro	RFC	5
		NPCC	5
David Gladey	PPL Susquehanna	RFC	5
Tom Olson	PPL Montana	WECC	5
Mark Heimbach	PPL EnergyPlus	RFC	6
		NPCC	6
		MRO	6
		SERC	6
		SPP	6
Jon Williamson	PPL EnergyPlus	WECC	6
John Cummings	PPL EnergyPlus	WECC	6

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: PPL Supply Groups agree with the changes made by the SAR drafting team to eliminate the requirements for generator operator and local control center operators to be NERC certified.

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Kenneth D. Brown
Organization:	PSEG Companies
Telephone:	973-430-6470
E-mail:	Kenneth.Brown@PSEG.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/> 3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input checked="" type="checkbox"/> 5 — Electric Generators
<input type="checkbox"/> SERC	<input checked="" type="checkbox"/> 6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/> 7 — Large Electricity End Users
<input checked="" type="checkbox"/> WECC	<input type="checkbox"/> 8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/> 9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/> 10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

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- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

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Individual Commenter Information	
(Complete this page for comments from one organization or individual.)	
Name:	Thomas J Bradish
Organization:	Reliant Energy
Telephone:	724-597-8593
E-mail:	tbradish@reliant.com
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input checked="" type="checkbox"/> ERCOT	<input type="checkbox"/> 1 — Transmission Owners
<input checked="" type="checkbox"/> FRCC	<input type="checkbox"/> 2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/> 3 — Load-serving Entities
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Mike Pfeister	
Organization:	Salt River Project	
Telephone:	602-236-3970	
E-mail:	Mike.Pfeister@srpnet.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
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<input type="checkbox"/> SERC	<input checked="" type="checkbox"/>	5 — Electric Generators
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<input checked="" type="checkbox"/> WECC	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	8 — Small Electricity End Users
	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

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Yes

No

Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
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Yes

No

Comments:

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 (Project 2007-04)**

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
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<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name: SERC OC Standards Review Group (Project 2007-04)

Lead Contact: Jim Griffith, Chair - SERC Operating Committee

Contact Organization: Southern Company Services, Inc.

Contact Segment: Transmission Owner

Contact Telephone: 205-257-6892

Contact E-mail: jsgriffi@southernco.com

Additional Member Name	Additional Member Organization	Region *	Segment *
Dan Jewell	LA Generating, LLC	SERC	3,4
Charlie Deleon	LA Generating, LLC	SERC	3,4
James Ford	Southern Co.	SERC	1,3
Alisha Anker	City of Springfield, IL - CWLP	SERC	1,3,5
Paul Hodges	GA System Operations Corporation	SERC	1,3
Wayne Pourciau	GA System Operations Corporation	SERC	1,3
Brian Haggard	GA System Operations Corporation	SERC	1,3
Gary Jenkins	GA System Operations Corporation	SERC	1,3
Wayne Mitchell	Entergy	SERC	1,3
Steve McElhaney	So. Miss. Elec. Power Assoc.	SERC	1,3
Charles Evans	So. Miss. Elec. Power Assoc.	SERC	1,3
Dan Kay	So. Miss. Elec. Power Assoc.	SERC	1,3
Alan Wilson	So. Miss. Elec. Power Assoc.	SERC	1,3
Gary Hutson	So. Miss. Elec. Power Assoc.	SERC	1,3
John Neagle	Assoc. Electric Cooperative, Inc.	SERC	1,3
James Vermillion	Assoc Electric Cooperative, Inc.	SERC	1,3
Robert Thomasson	Big Rivers Electric Corporation	SERC	1,3
Jeff Brown	Big Rivers Electric Corporation	SERC	1,3
John Rembold	Southern Illinois Power Cooperative	SERC	1,3
Jim Case	Entergy	SERC	1,3
Richard Chapman	Owensboro, KY Municipal Utilities	SERC	1,3
Margaret Stambach	SERC Reliability Corporation	SERC	10

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Comment Form — Certifying System Operators SAR (Project 2007-04)

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

Yes

No

Comments: We support this modification as it pertains to the functions that are applicable under PER-003.

Listed below are additional supporters of the comments that could not fit in the comment list.

Member Names	Member Organization	Region	Segment
Pat Huntley	SERC Reliability Corporation	SERC	10
Rene' Free	Santee Cooper	SERC	1
Kristi Boland	Santee Cooper	SERC	1
Mike Fielden	Tennessee Valley Authority	SERC	1,3,9
Sue Mangum Goins	Tennessee Valley Authority	SERC	1,3,9
Gene Delk	So. Carolina Electric & Gas	SERC	1,3
Steve Hebert	So. Carolina Electric & Gas	SERC	1,3
John Troha	SERC Reliability Corporation	SERC	10
Tim Hattaway	Alabama Electric Cooperative, Inc.	SERC	1,3
Richard McCall	No. Carolina Elec Membership Corp.	SERC	3,4,5
R. L. Williamson	Georgia Power Co.	SERC	1,3

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Operating Reliability Working Group (ORWG)	
Organization:	Southwest Power Pool	
Telephone:	501-614-3241	
E-mail:	rrhodes@spp.org	
NERC Region (check all Regions in which your company operates)	Registered Ballot Body Segment (check all industry segments in which your company is registered)	
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input checked="" type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name: Operating Reliability Working Group (ORWG)

Lead Contact: Robert Rhodes

Contact Organization: Southwest Power Pool

Contact Segment: 2

Contact Telephone: 501-614-3241

Contact E-mail: rrhodes@spp.org

Additional Member Name	Additional Member Organization	Region *	Segment *
Mike Anderson	AEP	SPP	1,3,5
Jason Atwood	Kelson Energy	SPP	5,6
Mike Gammon	KCPL	SPP	1,3,5
Pete Kuebeck	OG&E	SPP	1,3,5
Paul Lampe	City of Independence	SPP	1,3,5
Scott Lockwood	AEP	SPP	1,3,5
Jim Medford	Westar	SPP	1,3,5
Danny McDaniel	CLECO	SPP	1,3,5
Kyle McMenamin	SPS	SPP	1,3,5
Robert Rhodes	SPP	SPP	2
Jason Smith	SPP	SPP	2
Jim Useldinger	KCPL	SPP	1,3,5

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: Although we concur with elimination of the requirement to certify generator operators (the operator actually controlling the generator), we have concerns that there are certain situations where we need to be sure that accountability is assigned to the Generator Operator entity. This may require including Generator Operator in the applicability section of standards where they may not be currently listed.

**Comment Form — SAR to Revise PER-003, Operating Personnel Credentials
 (Project 2007-04)**

Please use this form to submit comments on the proposed SAR to revise PER-003, Operating Personnel Credentials (Project 2007-04). Comments must be submitted by **January 31, 2008**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Operating Personnel Credentials" in the subject line. If you have questions please contact Darrel Richardson at darrel.richardson@nerc.net or by telephone at (609) 613-1848.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Stephen Joseph	
Organization:	Tampa Electric Company	
Telephone:	813-630-6510	
E-mail:	sjjoseph@tecoenergy.com	
NERC Region (check all Regions in which your company operates)		Registered Ballot Body Segment (check all industry segments in which your company is registered)
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input checked="" type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — Certifying System Operators SAR (Project 2007-04)

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.

Background Information

In response to stakeholder comments, the Certifying System Operators SAR Drafting Team modified the Certifying System Operators SAR to clarify that the proposed revisions to PER-003 **will not** include requirements for certification of generator operators or local control center operators.

Because these changes are significant, the Standards Committee directed the SAR DT to post the revised SAR for another comment period. Please review the revised SAR and then answer the following question, using this form. Please e-mail the form to sarcomm@nerc.net with the subject "Operating Personnel Credentials" by **Thursday, January 31, 2008**.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

- 1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.**

- Yes
 No

Comments: I feel NERC certification should be required for Generator Operators and Transmission Operators in a local control center. It is hard for me to believe that the entities listed above would not take corrective action for a realtime contingency or would let their system suffer a voltage collapse while waiting on direction from a NERC Certified ISO/RTO. If the entities listed above do take direct action to return thier system to a stable state, which I would expect them to do, without direction from the NERC Certified ISO/RTO, than they would be in violation of NERC Standards.

Consideration of Comments on Second Draft of SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

The Operating Personnel Credentials SAR Drafting Team thanks all commenters who submitted comments on the 2nd draft of the SAR. This SAR was posted for a 30-day public comment period from January 2 through January 31, 2008. The SAR drafting team asked stakeholders to provide feedback on the SAR through a special SAR Comment Form. There were 50 sets of comments, including comments from 130 different people from more than 60 companies representing all 10 of the Industry Segments as shown in the table on the following pages.

Stakeholder comments received in response to the second draft of the Operating Personnel Credentials SAR did not indicate the need to make any new changes to the SAR. Based on the comments received, the drafting team is recommending that the Standards Committee authorize moving this SAR forward to standard drafting.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the SAR can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Process Manual:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Tim Hattaway (G7)	Alabama Electric Cooperative, Inc.	✓		✓									
2.	Anita Lee (G2)	Alberta Electric System Operator		✓										
3.	William J. Smith	Allegheny Power	✓											
4.	Ken Goldsmith (G4)	ALTW				✓								
5.	Kirit S. Shah	Ameren	✓		✓		✓	✓						
6.	Thad Kness	American Electric Power	✓		✓		✓	✓						
7.	Mike Anderson (G9)	American Electric Power	✓		✓		✓							
8.	Scott Lockwood (G9)	American Electric Power	✓		✓		✓							
9.	Chris Norton	AMP Ohio, Inc.				✓								
10.	John Neagle (G7)	Assoc. Electric Cooperative, Inc.	✓		✓									
11.	James Vermillion (G7)	Assoc. Electric Cooperative, Inc.	✓		✓									
12.	John Neagle	Assoc. Electric Cooperative, Inc.	✓				✓	✓						
13.	Jason Shaver	ATC LLC	✓											
14.	John Keller (G5)	Atlantic City Electric	✓											
15.	J. Andrew Dodge	Baltimore Gas and Electric	✓		✓									
16.	Dave Rudolph (G4)	BEPC	✓		✓		✓	✓						
17.	Robert Thomasson (G7)	Big Rivers Electric Corporation	✓		✓									
18.	Jeff Brown (G7)	Big Rivers Electric Corporation	✓		✓									
19.	Tony Kroskey	Brazos Electric	✓											
20.	Brent Kingsford (G2)	California ISO		✓										
21.	Brad Calhoun	CenterPoint Energy	✓											
22.	Paul Lampe (G9)	City of Independence	✓		✓		✓							
23.	Alisha Anker (G3) (G7)	City of Springfield, IL – CWLP	✓		✓		✓							

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
24.	Alan Gale	City of Tallahassee					✓							
25.	Steve Rose	City Water Light and Power	✓				✓		✓					
26.	Karl E. Kohlrus	City Water Power & Light, Springfield, IL					✓							
27.	Danny McDaniel (G9)	CLECO	✓		✓		✓							
28.	Russell A. Noble	Cowlitz County PUD No. 1			✓									
29.	Vic Davis (G5)	Delmarva Power	✓											
30.	Jalil J. Babik	Dominion Virginia Power					✓							
31.	Gregory D. Rowland	Duke Energy	✓		✓		✓							
32.	Gregory A. Mason	Dynegy					✓							
33.	Steve Myers (G2)	Electric Reliability Council of Texas		✓										
34.	Wayne Mitchell (G7)	Entergy Services, Inc.	✓		✓									
35.	Jim Case (G7)	Entergy Services, Inc.	✓		✓									
36.	H. Vann Weldon	ERCOT, Inc.		✓										
37.	Chris Scanlon	Exelon	✓											
38.	Sam Ciccone (G1)	FirstEnergy Corp.	✓		✓		✓	✓						
39.	Dave Folk (G1)	FirstEnergy FERC Compliance	✓		✓		✓	✓						
40.	Doug HohlBaugh (G1)	FirstEnergy FERC Compliance	✓		✓		✓	✓						
41.	Larry Hartley (G1)	FirstEnergy Solutions	✓		✓		✓	✓						
42.	R.L. Williamson (G7)	Georgia Power Company	✓		✓									
43.	Joseph Knight (G4)	GRE	✓		✓		✓	✓						✓
44.	Paul Hodges (G7)	GSOC	✓		✓									
45.	Wayne Pourciau (G7)	GSOC	✓		✓									
46.	Brian Haggard (G7)	GSOC	✓		✓									
47.	Gary Jenkins (G7)	GSOC	✓		✓									
48.	Alessia Dawes	Hydro One Networks, Inc.	✓		✓									
49.	Ron Falsetti (I) (G2)	Independent Electricity System Op.		✓										
50.	Kathleen M. Goodman	ISO New England		✓										
51.	Matt Goldberg (G2)	ISO New England		✓										
52.	Charles Yeung	Southwest Power Pool		✓										
53.	Jim Cyrulewski (G3)	JDRJC Associates									✓			
54.	Mike Gammon (G9)	Kansas City Power & Light	✓		✓		✓							
55.	Jim Useldinger (G9)	Kansas City Power & Light	✓		✓		✓							
56.	Jason Atwood (G9)	Kelson Energy					✓	✓						
57.	Dan Jewell (G7)	LA Generating, LLC			✓	✓								
58.	Charlie Deleon (G7)	LA Generating, LLC			✓	✓								
59.	Eric Ruskamp (G4)	LES	✓		✓		✓	✓						

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
60.	Steve Rainwater	Lower Colorado River Authority (1)	✓										✓	
61.	Rom Foreman	Lower Colorado River Authority (2)						✓						
62.	Joseph DePoorter	Madison Gas and Electric				✓								
63.	Leo St. Hilaire	Manitoba Hydro	✓		✓		✓	✓						
64.	Tom Mielnik (G4)	MEC	✓		✓		✓	✓						
65.	Robert Coish (G4)	MHEB	✓		✓		✓	✓						
66.	Marie Knox (G3)	Midwest ISO		✓										
67.	Bill Phillips (G2)	Midwest ISO		✓										
68.	Michael Brytowski (G4)	Midwest Reliability Organization												✓
69.	Jason L. Marshall (1) (G3)	Midwest Reliability Organization		✓										
70.	Carol Gerou (G3) (G4)	Minnesota Power	✓		✓		✓							
71.	Terry Bilke (G4)	Midwest ISO		✓										
72.	Larry Brusseau (G4)	Midwest Reliability Organization												✓
73.	Richard L. Koch	Nebraska Public Power District	✓		✓		✓							
74.	David Mahlmann	New York ISO		✓										✓
75.	Jim Castle (G2)	New York ISO		✓										
76.	Theodore G. Pappas	New York State Reliability Council												
77.	Richard McCall (G7)	No. Carolina Membership Corp.			✓	✓	✓							
78.	Rick White	Northeast Utilities	✓											
79.	Doug Jensen	NorthernStar Generation					✓							
80.	Allen Czerkiewicz	NorthernStar Generation					✓							
81.	George Brady	Ohio Valley Electric Corporation	✓											
82.	Pete Kuebeck (G9)	Oklahoma Gas & Electric	✓		✓		✓							
83.	Stan Southers/Ellis Rankin	Oncor Electric Delivery Company, LLC	✓											
84.	Larry R. Larson	Otter Tail Power Company	✓		✓		✓	✓						
85.	Richard Chapman (G7)	Owensboro, KY Municipal Utilities	✓		✓									
86.	Lauri Jones	Pacific Gas & Electric	✓		✓		✓			✓				
87.	Richard J. Kafka	Pepco Holdings, Inc.	✓											
88.	Patrick Brown	PJM Interconnection					✓	✓						
89.	Patrick Brown (G2)	PJM Interconnection		✓										
90.	Valerie Hildebrand (G5)	Potomac Electric Power Company	✓											

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter		Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
91.	Mark Bryant (G6)	PPL Eastern Fossil & Hydro					✓						
92.	Joe Kisela (G6)	PPL Eastern Fossil & Hydro					✓						
93.	Mark Heimbach (G6)	PPL EnergyPlus					✓						
94.	Jon Williamson (G6)	PPL EnergyPlus						✓					
95.	John Cummings (G6)	PPL EnergyPlus						✓					
96.	Annette M. Bannon (G6)	PPL Generation LLC					✓						
97.	Tom Olson (G6)	PPL Montana					✓						
98.	David Gladey (G6)	PPL Susquehanna					✓						
99.	Kenneth D. Brown	PSEG Companies	✓		✓		✓	✓					
100.	Thomas J. Bradish	Reliant Energy					✓						
101.	Mike Pfeister	Salt River Project	✓		✓		✓	✓					
102.	Terry L. Blackwell	Santee Cooper	✓										
103.	Rene Free (G7) (G8)	Santee Cooper	✓										
104.	Kristi Boland (G7) (G8)	Santee Cooper	✓										
105.	Glenn Stephens (G8)	Santee Cooper	✓										
106.	Tom Abrams (G8)	Santee Cooper	✓										
107.	Margaret Stambach (G7)	SERC Reliability Corporation											✓
108.	Pat Huntley (G7)	SERC Reliability Corporation											✓
109.	John Troha (G7)	SERC Reliability Corporation											✓
110.	Gene DeIk (G7)	So. Carolina Electric & Gas	✓		✓								
111.	Steve Hebert (G7)	So. Carolina Electric & Gas	✓		✓								
112.	Steve McElhane (G7)	So. MS Electric Power Assoc.	✓		✓								
113.	Charles Evans (G7)	So. MS Electric Power Assoc.	✓		✓								
114.	Dan Kay (G7)	So. MS Electric Power Assoc.	✓		✓								
115.	Alan Wilson (G7)	So. MS Electric Power Assoc.	✓		✓								
116.	Gary Hutson (G7)	So. MS Electric Power Assoc.	✓		✓								
117.	Jim Griffith	Southern Company Services, Inc.	✓										
118.	James Ford (G7)	Southern Company Services, inc.	✓		✓								
119.	John Rembold (G7)	Southern Illinois Power Corporation	✓		✓								
120.	Robert C. Rhodes (G9)	Southwest Power Pool											✓

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

	Commenter	Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
121.	Jason Smith (G9)	Southwest Power Pool											✓
122.	Kyle McMEnamin (G9)	SPS	✓		✓		✓						
123.	Stephen Joseph	Tampa Electric Company	✓		✓		✓						
124.	Mike Fielden (G7)	Tennessee Valley Authority	✓		✓							✓	
125.	Sue Mangum Goins	Tennessee Valley Authority	✓		✓							✓	
126.	Jim Haigh (G4)	WAPA	✓						✓				
127.	Barb Kedrowski (G3)	We Energies					✓						
128.	Jim Medford (G9)	Westar	✓		✓		✓						
129.	Neal Balu (G4)	WPA			✓	✓	✓	✓					
130.	Pam Oreschnick (G4)	XCEL	✓		✓		✓	✓					

- I – Individual
- G1 – FirstEnergy
- G2 – Midwest ISO
- G3 – Midwest Reliability Organization
- G4 – MRO NSRS
- G5 – Pepco Holdings, Inc.
- G6 – PPL Generation etc.
- G7 – SERC OC Standards Review Group
- G8 – Santee Cooper
- G9 – SPP Operating Reliability Working Group

Index to Questions, Comments, and Responses

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area..... 8

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

Summary Consideration: The majority (in excess of 80%) of the commenters agreed that this SAR should not be applicable to Generator Operator entities or Local Control Center Operator entities.

Following the initial posting of the SAR, the SAR Drafting Team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. With this second posting of the SAR, stakeholders have again indicated that the revised PER-003 should not be applicable to either the Generator Operator or Local Control Center Operator entities. The drafting team did not make any changes to the SAR based on stakeholder comments.

Commenter	Yes	No	Comment
Ameren		X	<p>Generator Operators, Transmission Operators, Balancing Authority Operators, and Reliability Coordinators have the primary responsibility for the real-time reliability of the Bulk Electric System. Each of these entities must have provincial knowledge of their systems AND must have knowledge of how their systems fit in with the overall interconnected system*. While it seems nice to think that TOPs, BAs, and RCs can effectuate presumptive actions at a GOP, there is no doubt that most such actions are, in fact, responsive. It is precisely for this reason that NERC certifications exist. And if certifications are necessary for TOP, BA, and RCs then it should be needed for GOP. However, it is equally clear that the current certifications (which have, for all intents and purposes, been in place before the functional model was developed) do not offer a Generator Operator certification that is appropriate for the requirements put forth in the NERC standards and needed for all Generator Operators. Rather than remove the certification requirement for GOPs, it is incumbent to develop the PROPER certification for GOPs. Such certification should only include generation systems and their impact on the Bulk Electric System. We envisage that such certification would entail perhaps 1/3 of the material in a BA/TOP certification and would carry with it a reduced set of certification hours, perhaps 50-90 hours of renewal training accumulated over three years for the review of Standards and Bulk Electric System concepts. We would also expect that each GO would determine, based on their organizational structure, for which positions certification is appropriate.</p> <p>*TOPs, BAs, and RCs do not know what traps may be created by a GOP(until it is too late). For example, a GOP might be having difficulty with a control function which is limiting output to less than maximum. The problem seems to be related to frequency response. Is there a possibility that a unknowing GOP would disable the droop component to maximize output until they can get the control problem fixed? If yes,</p>

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
			such action would then obviously undermine BES reliability. Having the GOP function certified would obviate this.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators (GOPs) are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by having agreements in place to assure that the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from an operating authority on how to proceed from that point. The BA and TOP remain the responsible operating authorities.</p>			
American Electric Power		X	Due to the potential impact of a Generation Operator's actions on the ability of the other Functional Entities to perform their functions in maintaining reliable operation of the Bulk Electric System, it would be appropriate to include NERC certification for the Generator Operator. In developing the Generator Operator certification, it should be understood that the need for maintaining at least a high level of demonstrated understanding of the effect of each Functional Entity's impact on the other reliability functions. From the real-time reliable operating perspective, the related impact for maintaining reliability among the responsible Functional Entities cannot be separated, because of the inherent effect each one has on the other.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator (RC), the Balancing Authority (BA) and the Transmission Operator (TOP) is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Hydro One Networks, Inc.		X	<p>Generator Operators or Local Control Centre Operators could operate a BES element. If so, they should require NERC certification.</p> <p>Similar to how Generator Operators are referred to in the proposed EOP-005-2 on System Restoration and Blackstart Resources - Operations, include Generator Operators</p>

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Commenter	Yes	No	Comment
			and Local Control Center Operators in the PER-003-0 standard Applicability section. In the Requirements section, write "Each Generator Operator who operates a Bulk Electricity System element ..."
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Tampa Electric Company		X	I feel NERC certification should be required for Generator Operators and Transmission Operators in a local control center. It is hard for me to believe that the entities listed above would not take corrective action for a realtime contingency or would let their system suffer a voltage collapse while waiting on direction from a NERC Certified ISO/RTO. If the entities listed above do take direct action to return thier system to a stable state, which I would expect them to do, without direction from the NERC Certified ISO/RTO, than they would be in violation of NERC Standards.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities. In cases of loss of communications between the operating entity and the GOP and/or LCC there is an agreed to procedure/directive in place defining what actions are to take place that has been directed by the operating entity(s).</p>			
Otter Tail Power Company		X	GOPs should have proper GOP certification that focuses on their duties with an understanding of the impact on BES reliability. Similarly, LCCs should have LCC certification that focuses on their specific duties and their impact on BES reliability. We believe NERC certification is an important part of reliable operations but expect that the

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Commenter	Yes	No	Comment
			<p>industry would be better served with specific certification which properly address duties of GOPs and LCCs since the functional model clearly draws a line between the duties of those two entities and those of a BA. The NERC Certification is a "baseline" of knowledge demonstrated through a written exam. We encourage others to not only endorse this certificaion need, but also to use this as a "baseline" for their training programs. With the turn-over of System Operations Personnel soon to come to our industry it is essential we maintain a basic level of knowledge among all personnel that effect the operation of the BES.</p>
<p>Response: The initial SAR contained requirements for Generator Operator (GOP) entities and Local Control Center (LCC) Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority (BA) and/or Transmission Operator (TOP) that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or GOP will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Lower Colorado River Authority (1)		X	<p>Local control center operator needs to be defined. What exactly is a "local control center operator"? Will that mean that Transmission Operators in ERCOT will not need to be NERC certified since ERCOT itself performs the control area function? Also, in the LCRA system there are numerous transmission lines that are owned by COOP's but are operated by LCRA. Does this mean that distribution operators at the COOP's can operate their transmission lines without being certified, yet an LCRA transmission operator would be required to have a certification? As you can see much clarification is needed here. In addition, generator operators can have a major impact on the transmission system, yet their training may or may not address the transmission system itself. I spent 9 years in power plant operations, yet knew relatively little about the transmission system in relation to the detailed knowledge I possessed with respect to plant operations. Since coming to work in a transmission control center it has been my experience that transmission operators know much more concerning generation than generator operators know about transmission. This is most likley due to the fact that transmission operators, at LCRA anyhow, tend to have more prior work experience, and more importantly, the NERC Certification Program and Continuing Education Program stress that knowledge. The same could be done for generator operators in my opinion.</p>
<p>Response: The initial SAR contained requirements for Generator Operator (GOP) entities and Local Control Center (LCC) Operator entities to be certified. The</p>			

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Commenter	Yes	No	Comment
			<p>SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GO/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>
Northeast Utilities		X	<p>We do agree Generator Operators need not be NERC certified. However, the SAR should recognize NERC certification of Transmission Operators in a Local Control Center (LCC) may be appropriate. Several New England LCCs are registered TOPs who run studies, monitor the system, switch components in & out of service including reactive resources, address real-time contingencies including load shedding, perform system restoration, have backup centers, direct other control centers to take action, etc. All actions/activities are closely coordinated with the RC/BA who is also registered as a TOP. Responsibilities and chain-of-command are documented and clear. It is recognized other Areas may not allow LCCs to take action alone, they act only when directed. The SAR needs to accomodate the different models that exist. Any operator that can take unilateral action on the bulk power system should be NERC certified. The revised "clean" SAR does not appear to specifically prevent LCCs from having certified operators, but this modification implies that could be the case.</p>
			<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities. In cases of loss of communications between the operating entity and the LCC there should be an agreed to procedure in place defining what actions are to take place.</p> <p>By definition, if an entity is registered as a TOP that entity must be certified both presently and in the proposed revisions to this standard. This SAR is not saying that personnel working at a LCC can't be certified, therefore they could be certified if desired.</p>
City Water Light and Power		X	Transmission Operators, Balancing Authority Operators, Reliability Coordinators, and

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Commenter	Yes	No	Comment
			<p>Generator Operators must have knowledge of these systems and the Bulk Electric System. TOP, BA, and RCs NERC Certification should also extend to GOP. A proper certification for GOP is needed rather than remove the certification requirement for GOP's. In an effort to reduce the burden of GOP certification on the entire Bulk Electric System the proper GOP certification should also have a requirement of a generator capacity connected to the Bulk Electric System. For example all generators at 100 MW or greater would be required to have the new GOP NERC Certification. The new GOP requirement would also extend to generators less than 100 MW that are determined to be "Critical Generators" or "Black Start Units" by Transmission Owner, Balancing Authority, Reliability Coordinator and NERC Region to the Bulk Electric System. All other smaller generators would be excluded from the GOP NERC Certification. The PROPER GOP Certification requirement would achieve a higher level of competency and increase the level Bulk Electric System situational awareness by the GOP which is the intent of the NERC Standards.</p>
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entity.</p>			
City Water Power & Light, Springfield	X	X	<p>I agree with the changes to eliminate the requirements for NERC certification of generator operators, but not for eliminating the requirement for certification of local control system operators.</p> <p>There are many sizes and types of generator operators. Where would you draw the line? Voltage? Size? Type? Our system has a 128 MW generator connected to the 138 kV system, whereas a neighbor has a 260 MW generator connected to the 69 kV system. There are thousands of personnel who operate various sizes and types of generators. Requiring NERC certification for all of them would be an administrative burden and not add to reliability.</p> <p>Certifying local control center operators, however, should be kept. Most problems start and are addressed locally. If untrained personnel are operating the system, this could result in reliability</p>

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Commenter	Yes	No	Comment
			<p>problems. For example, the 24 BAs in MISO, many of which are also TOPs, will be operating as Local Balancing Authorities after the MISO Ancillary Services Market begins operation. If a local TOP operates 100 kV or higher facilities, that person should be certified.</p>
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p> <p>LCC personnel training requirements are not within the scope of this SAR. The training standard that addresses BES personnel training requirements is currently being developed separate from this SAR.</p>			
FirstEnergy Corp.	X	X	<p>The modifications made to the SAR to eliminate the NERC certification requirements for Generator Operators and local control center operators is consistent with the FERC view of the matter as communicated in Order 693. We agree that certification should be focused on expectations, tailored towards specific job functions, and reflect the impact that an operators actions can have on the reliability of the Bulk Electric System.</p> <p>Local control center operators that have at their unrestrained control the ability to perform switching on the Bulk Electric System, to shed load, or to restore load through the use of supervisory control or through the direct or indirect communication with a field switchman under some circumstances can have a profound impact on the reliability of the Bulk Electric System and should be certified. However, local control center operators in remote locations that are prohibited from developing and taking independent action during a normal, emergency or restoration conditions should not be required to be certified.</p> <p>The Generator Operator (the operator at the controls of a plant or unit) should not be required to be certified. However, the Generator Operator (the operator on duty at a centrally located control center with control over a fleet of generators located at two or more power plants) can have a profound impact on the reliability of the Bulk Electric System and should be certified.</p> <p>Both the Generator Operator and local control center operator requiring certification as outlined above should be subject to the certification requirements of a reliability</p>

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Commenter	Yes	No	Comment
			organization such as NERC or a Regional Entity. These entities have the authority to develop and enforce standards compelling certification for all personnel with an impact on reliability.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC/GO follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Allegheny Power	X		Allegheny Power agrees with the modifications that eliminates the applicability of this standard to GOPs and LCCs. However NERC should specify that it is the responsibility of the ISO/RTOs to certify those entities. The minimum requirements for those certification program should be specified in a NERC Standard to ensure consistent certification through out the entire grid for those entities.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. In regards to your suggestion that NERC should ensure the ISO/RTOs certify these entities - that is beyond the scope of this SAR.</p>			
AMP Ohio, Inc.	X		AMP-Ohio agrees with eliminating the current requirements as they currently apply to generator operators. To the extent that a certification or training standard is applied to generator operators it should be tailored to the functions and activities that generator operators actually conduct. Generator operator personnel should not be required to test on detailed functions and activities that take place at the Reliability Coordinator, Balancing Authority or Transmission Operator. In other words generator operators should not be required to pass the balancing authority, transmission operator or reliability coordinator test. A new test should be developed that is targeted towards generator operators and the functions they actually perform.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. In regards to your suggestion that a new test should be developed specific to Generator Operators, that is now outside the realm of this SAR.</p>			
ATC LLC	X		ATC believes that any system operator who is allowed to take independent action on the bulk power system should be NERC certified.
<p>By removing this provision from the SAR is the Standard Drafting Team saying that local</p>			

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Commenter	Yes	No	Comment
			<p>control center's system operators do not take independent action on the bulk power system?</p> <p>If this is the case then we agree with the changes to the SAR.</p> <p>Additional comments:</p> <p>Issue 1: The SAR needs to be expanded to include NERC Standards PER-001 and PER-002. Doing so is the only way to insure the development of a comprehensive set of personnel standards.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comments.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Local Control Center personnel will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities</p> <p>In regards to your suggestion that NERC should include Standards PER-001 and PER-002 in this SAR is out of the realm of this SAR. Per-001 deals with responsibility and authority while PER-002 concerns training. This Standard is meant to define those entities that need to be certified and is not meant to touch on responsibility, authority or training. A training standard is presently in the process of being developed.</p>			
Baltimore Gas and Electric	X		<p>We recommend that the revised standard be clear as to who is responsible at the requirement level as well. For example, Transmission Operator delegated tasks to Transmission Owners/Local Control Centers should not require Transmission Owner System Operators to be NERC certified. The Transmission Operator should be responsible for ensuring that the Transmission Owner/Local Control Center System Operators are qualified to perform their delegated tasks.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the Transmission Operator/Local Control Center follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
CenterPoint	X		<p>CenterPoint Energy strongly believes that the proposed modifications to the SAR are appropriate and consistent with FERC's determination in Order No. 693 paragraph 1407 "not to require generator operators and transmission operators at local control centers</p>

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Commenter	Yes	No	Comment
			to be NERC Certified at this time".
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
Dynegy	X		The Certifying System Operators SAR Drafting Team correctly cited FERC Order 693 and the NERC Functional Model Version 3 definitions as key reasons for eliminating any requirements for NERC certification of generator operators and local control center operators.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
ERCOT, Inc.	X		The Certifying System Operators SAR Drafting Team correctly cited FERC Order 693 and the NERC Functional Model Version 3 definitions as key reasons for eliminating any requirements for NERC certification of generator operators and local control center operators.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
Exelon	X		FERC final Rule 693 does not require certification for Local Control Center Transmission Owner / Operators or Generation Plant or Control Center Operators. Under Commission Determination, Paragraph 1407 of Order 693, Commissioners state " The Commission understands these (industry) concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERC certified at this time". Exelon agrees with FERC that it is the Balancing Authority, Reliability Coordinator and Transmission Operator, entities who have been certified by NERC per the guidelines in Appendix 5, Organization Registration and Certification of the NERC Rules Of Procedure, to whom the Standard should apply.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
IESO	X		The IESO supports the SAR DT position not to mandate certification of local control centers (LCC) and Generator Operators. The Generator Operator and the LCC Operator should not be subject to NERC certification requirements since they do not have the decision-making authority for the real-time operation of the Bulk-Power System.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
ISO New England	X		ISO New England supports the position not to mandate certification of LLCs and Generator Operators. ISO New England believes that NERC standards only apply to Registered Entities

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			<p>identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and the definition of what exactly a local control center is varies across the country, creating a Standard that is applicable to this undefined entity would be problematic.</p> <p>Given the divergence in both areas of operations and technology to be operated, ISO New England believes that the best approach is to not require Generator Operator certification, but leave this responsibility to the plant/station owners who have a strong business purpose for ensuring their operating personnel are proficient.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. The ERO Rules of Procedure, not the Functional Model, dictate which entities must register for compliance with NERC's reliability standards.</p>			
ISO/RTO Council	X		<p>The IRC supports the SAR DT position not to mandate certification of LLCs and Generator Operators.</p> <p>The DT's position as regards to LLC's is consistent with the IRC's position that NERC standards only apply to Functional Entities identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and understanding of what exactly a local control center is varies across the country, registration of this undefined group would be inappropriate.</p> <p>The concept of not mandating NERC-certification of Generator Operators (that would have concentrated on the few generalized NERC standards that apply to operating generators) is consistent with the position that a one-size fits all approach for generator operators may not be the best approach. The SAR DT position allows a decentralized but more focused program approach for the areas in which the operators must work.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. The ERO Rules of Procedure, not the Functional Model, dictate which entities must register for compliance with NERC's reliability standards.</p>			
Manitoba Hydro	X		<p>The revisions to the SAR better represent the intent of the PER-003.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
Midwest ISO	X		<p>Training should be focused on expectations and tailored towards specific job functions. The plant operator and the local control center operator should not be subject to NERC certification requirements. It is not necessary for operators located in remote locations, who are not primarily responsible for the real-time operation of the Bulk-Power System, to be certified in real-time operations Reliability Standards because they are not</p>

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Commenter	Yes	No	Comment
			involved in the functions in which this disciplined training would be advantageous. There is an exception though. Some entities have local control centers that actually do work, such as switching, that the main control center would normally do. To the extent this happens, the local control center operators should be certified. If it is done under the supervision of a NERC certified operator, no certification would be needed.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GO/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Midwest Reliability Organization	X		<p>Following the NERC functional model. As long as an entity is not performing a critical function. ie: Reliability Coordinator, Transmission Operator, and Balancing Authority. The term "Local Control Center" is not a defined NERC function and is unclear what is meant by "Local Control Center".</p> <p>General Comment:</p> <p>On page 3 of the SAR under the V0 Industry Comments section, the second comment reads "R1 - Suggestion to be incorporated into next version (version 1): ...". This comment further states "The operation position is to be filled by a person holding the appropriate level certification." The MRO believes the example given after this sentence to explain this sentence does not fully clarify who might hold an appropriate level certificate. The MRO believes the example should be expanded to included other appropriate level certificates such that the example should read "For example, a person that is acting as the Reliability Coordinasator will need to hold a Reliability Coordinator operator certificate and a person acting as a Transmission Operator would need to hold a Tranmission Operator certificate, a Balancing Interchange Transmission Operator certificate, and/or Reliability Coordinator certificate."</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The Version 0 comments that were included in the SAR were submitted by stakeholders in response to PER-003-0 when Version 0 was under development. These comments have been included in the SAR so that the drafting team can consider these comments as they determine what modifications to make to the standard. The SAR drafting team will not edit these comments.</p>			
Nebraska Public Power District	X		I believe that NERC certification of GOP and LCC operating personnel is appropriate if and only if a new certification is developed that is relavant to their job functions and their ability to impact the BES. In my opinion, the requirement for NERC certification of generator operators and local control center operators should be removed from

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Commenter	Yes	No	Comment
			<p>Standard PER-003 until the new certification(s) have been developed and approved. Including the requirement at this time would result in the need to certify to one of the existing certifications. Reintroducing the requirement after approval of the new certification would allow owners, operators, and users of the bulk power system to know exactly what is being proposed before making it mandatory and enforceable.</p> <p>An alternate approach would be to retain the requirement with a "phased-in" implementation schedule where the development of the appropriate certification(s) is the first phase. The risk of this approach is that an unknown certification becomes mandatory and enforceable. This is similar to writing a blank check.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
NorthernStar Generation Services	X		<p>The Certifying System Operators Drafting Team properly deleted the originally-proposed requirement for certification of generator operators and local control center operators. There is no justification for any such requirement. First, there has been no NERC proceeding establishing whether there is any need for such uniform certification. Second, the original PER-003 certification proposal was the subject of a great deal of disagreement within the industry, and presented a litany of implementation difficulties, which FERC recognized in Order No. 693 (at para. 1395); in fact, the FERC acknowledged that certain elements of the proposed personnel certification plan presented implementation difficulties, and did not originally propose to require generator operator personnel to be NERC-certified (at para. 1407). Third, the PER-003 proposed certifications were never agreed to by a consensus of the Bulk Power System Users. Fourth, the usefulness of any such certification requirement is questionable, particularly since the physical equipment, communications systems, and controls in place at different generators widely differs. The captioned filers strongly support the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
Oncor Electric Delivery	X		<p>Oncor endorses the modifications made to the previous version of this draft standard.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
PJM Interconnection	X		<p>PJM agrees with this modification. We, as do many other entities, have an internal certification process for GOs and LCCs that are specific to the PJM system.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
PPL Industries	X		PPL Supply Groups agree with the changes made by the SAR drafting team to eliminate the requirements for generator operator and local control center operators to be NERC certified.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
SERC	X		We support this modification as it pertains to the functions that are applicable under PER-003.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
SPP ORWG	X		Although we concur with elimination of the requirement to certify generator operators (the operator actually controlling the generator), we have concerns that there are certain situations where we need to be sure that accountability is assigned to the Generator Operator entity. This may require including Generator Operator in the applicability section of standards where they may not be currently listed.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
As standards are posted for comment, please submit comments to indicate where you believe a requirement should be assigned to a Generator Operator.			
Lower Colorado River Authority (2)	X		
Madison Gas and Electric	X		
PSEG Companies	X		
Reliant Energy	X		
Salt River Project	X		
Santee Cooper	X		
Pepco Holdings, Inc.	X		
PG&E	X		
Ohio Valley Electric Cooperative	X		
New York ISO	X		
NY State Reliability Council	X		
Associated Electric Cooperative	X		
City of Tallahassee	X		
Cowlitz County PUD No. 1	X		

Comment Report Form for SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)

Commenter	Yes	No	Comment
Dominion Virginia Power	X		
Duke Energy	X		
Brazos Electric	X		

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION



Standards Announcement

Nomination Period Opens

April 24–May 7, 2008

Now available at: http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html

Nominations for Project 2007-04 Certifying System Operators (April 24–May 7, 2008)

The Standards Committee is seeking industry experts to serve on the [Certifying System Operators](#) Standard Drafting Team. This project involves making revisions to PER-003-0 Operating Personnel Credentials. If you are interested in serving on this team, please complete this [nomination form](#) no later than May 7, 2008.

Standards Development Process

The [Reliability Standards Development Procedure](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

For more information or assistance, please contact Maureen Long, Standards Process Manager, at maureen.long@nerc.net or at (813) 468-5998.

North American Electric Reliability Corporation
116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

A. Introduction

- 1. Title:** **Operating Personnel Credentials**
- 2. Number:** PER-003-0
- 3. Purpose:** Certification of operating personnel is necessary to ensure minimum competencies for operating a reliable Bulk Electric System.
- 4. Applicability**
 - 4.1.** Transmission Operators.
 - 4.2.** Balancing Authorities.
 - 4.3.** Reliability Coordinators.
- 5. Effective Date:** April 1, 2005

B. Requirements

- R1.** Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall staff all operating positions that meet both of the following criteria with personnel that are NERC-certified for the applicable functions:
 - R1.1.** Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.
 - R1.2.** Positions directly responsible for complying with NERC standards.

C. Measures

- M1.** Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall have NERC-certified operating personnel on shift in required positions at all times with the following exceptions:
 - M1.1** While in training, an individual without the proper NERC certification credential may not independently fill a required operating position. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC-certified individual filling the required position.
 - M1.2** During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours.

D. Compliance

1. Compliance Monitoring Process

Periodic Review: An on-site review will be conducted every three years. Staffing schedules and certification numbers will be compared to ensure that positions that require NERC-certified operating personnel were covered as required. Certification numbers from the Transmission Operator, Balancing Authority, and Reliability Coordinator will be compared with NERC records.

Exception Reporting: Any violation of the standard must be reported to the Regional Reliability Organization, who will inform the NERC Vice President-Compliance, indicating the reason for the non-compliance and the mitigation plans taken.

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Timeframe

One calendar month without a violation.

1.3. Data Retention

Present calendar year plus previous calendar year staffing plan.

1.4. Additional Compliance Information

Not specified.

2. Levels of Non-Compliance

2.1. Level 1: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 0 hours and up to 12 hours during a one calendar month period for each required position in the staffing plan.

2.2. Level 2: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 12 hours and up to 36 hours during a one calendar month period for each required position in the staffing plan.

2.3. Level 3: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 36 hours and up to 72 hours during a one-month calendar period for each required position in the staffing plan.

2.4. Level 4: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 72 hours during a one calendar month period for each required position in the staffing plan.

E. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New

Unofficial Comment Form for Operating Personnel Credentials Standard (Project 2007-04)

Please **DO NOT** use this form. Please use the [electronic comment form](#) located at the link below to submit comments on the draft Operating Personnel Credentials standard. Comments must be submitted by **November 20, 2009**. If you have questions please contact **Darrel Richardson** at Darrel.Richardson@nerc.net or by telephone at 609-613-1848.

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Background Information:

The Operating Personnel Credentials standard is designed to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator have demonstrated competency through the Certification Process when filling the operating position responsible for control of the Bulk Electric System. This standard will replace standard PER-003-0 once it is approved by the appropriate entities. The focus of this standard has been to provide greater clarity in who exactly needs to be certified and what certificate is needed to operate the Bulk Electric System as a Reliability Coordinator, Balancing Authority or Transmission Operator.

The Drafting Team would like to receive industry comments on this standard. Accordingly, we request that you include your comments on this form by **November 20, 2009**.

- 1. The Purpose statement of the draft standard reads "To ensure that System Operators performing the reliability-related tasks' of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System".**

Do you agree with the Purpose as written for this standard? If not, please explain in the comment area.

Yes

No

Comments:

- 2. The effective date of the draft standard reads "In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption".**

Do you agree with the effective date as written for this standard? If not, please explain in the comment area.

Yes

No

Comments:

3. Requirement R1 of the draft standard reads:

R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate.

1.1 Areas of Competency

1.1.1 Resources and Demand Balancing

1.1.2 Transmission Operations

1.1.3 Emergency Preparedness and Operations

1.1.4 System Operations

1.1.5 Protection and Control

1.1.6 Voltage and Reactive

1.1.7 Interchange Scheduling and Coordination

1.1.8 Interconnection and Reliability Operations and Coordination

Do you agree with Requirement R1 as written for this standard? If not, please explain in the comment area.

Yes

No

Comments:

4. Requirement R2 of the draft standard reads:

R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

2.1 Areas of Competency

2.1.1 Transmission Operations

2.1.2 Emergency Preparedness and Operations

2.1.3 System Operations

2.1.4 Protection and Control

2.1.5 Voltage and Reactive

2.2 Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator"

Unofficial Comment Form — Operating Personnel Credentials Standard

Do you agree with Requirement R2 as written for this standard? If not, please explain in the comment area.

Yes

No

Comments:

5. Requirement R3 of the draft standard reads:

R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

3.1 Areas of Competency

3.1.1 Resources and Demand Balancing

3.1.2 Emergency Preparedness and Operations

3.1.3 System Operations

3.1.4 Interchange Scheduling and Coordination

3.2 Certificates

Reliability Operator

Balancing, Interchange and Transmission Operator

Balancing and Interchange Operator”

Do you agree with Requirement R3 as written for this standard? If not, please explain in the comment area.

Yes

No

Comments:

6. Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area.

Yes

No

Comments:

7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area.

Yes

No

Comments:

8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area.

Yes

No

Comments:

9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area.

Yes

No

Comments:

10. In FERC Order 693 the Commission directed the ERO to consider “grandfathering” of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows:

- A. Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations. As the ERO, NERC has responsibility for ensuring the real-time operation of the Bulk Electric System. Passing a certification examination is NERC’s only available method to verify the minimum knowledge level of a System Operator.
- B. While a concern was expressed about experienced system operators not being able to pass an examination, there was no evidence provided to support this concern.

The SDT researched a sample of actual industry experience with the NERC System Operator Certification pass rates. The SDT members work within the industry and are associated with control centers across three North American Interconnections; therefore, researching the pass rates within their own organizations provides a valid sampling across the industry. The results of the survey are reflected in the following table.

System Operator Passing Rates			
Operators that took a NERC Certification Exam	Operators that successfully passed a NERC Certification Exam	Operators that required more than one attempt to pass a NERC Certification Exam	Operator with previous experience operating the BES unable to pass a NERC Certification Exam
200	196	14	0

These results led the SDT to the conclusion that the concern about experienced operators being unable to pass a NERC Certification exam were not well founded, when considering a sampling across the industry.

Grandfathering would greatly diminish the validity and defensibility of the NERC System Operator Certification Program. In doing the research, the SDT was unable to find evidence that the grandfathering would have a positive impact on either the NERC Certification Program or the reliability of the Bulk Electric System.

- C. A concern was raised that industry employers may have labor relations issues due to requiring portions of their workforce to hold a NERC System Operator Certification.

PER-003-1 applicability impacts the population of System Operators that are already NERC certified under PER-003-0. There should not be a large scale scope change impacting non-NERC certified personnel. Overall labor relations issues that arose due to the NERC System Operator Certification requirements have, for the most part, already been settled.

There are several members on the SDT that have had experience with the NERC System Operator Certification requirement being imposed on bargaining unit personnel within their organization. Their experience has been that it did open some discussion between management and the collective bargaining entity, but it was resolved equitable within their organizations. Most collective bargaining agreements have some provision that addresses regulatory or legal changes that affect the organization personnel.

- D. Another concern was raised about small industry entities retaining personnel within their organization once they have become better qualified by obtaining a NERC System Operator Certification. The concern appears to be that the System Operators would become more “marketable” and would possibly be enticed to leave smaller organizations to join larger organizations that typically have a higher pay scale.

As stated above, the target population for NERC System Operator Certification already holds a NERC Certification. There will not be a significant number of individuals who will become immediately more marketable than they were previously.

The NERC System Operator Certification Program is designed to ensure that System Operators who are making decisions impacting the operation of the Bulk Electric System have at least a minimum knowledge level. Whether a System Operator works for a large or small entity, verifying their minimum knowledge level has a very positive impact on the Bulk Electric System reliability. While personnel retention is an issue within the industry, reducing requirements on verifying and improving the capabilities of System Operators is not an appropriate corrective action.

Do you agree with the proposed concept that “grandfathering” not be allowed? If not, please explain in the comment area.

Yes

No

Comments:

11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process.

Unofficial Comment Form — Operating Personnel Credentials Standard

Do you agree with the method the SDT has used to meet the FERC directive? If not, please explain in the comment area.

Yes

No

Comments:

12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section.

Comments:

13. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Comments:

Implementation Plan for PER-003-1 — Operating Personnel Credentials Standard

Prerequisite Approvals

There are no other reliability standards or Standard Authorization Requests (SARs), in progress or approved, that must be implemented before this standard can be implemented.

Modified Standards

PER-003-0 should be retired when PER-003-1 becomes effective.

Compliance with Standards

Once this standard becomes effective, the responsible entities identified in the applicability section of the standard must comply with the requirements. These include:

- Reliability Coordinator
- Transmission Operator
- Balancing Authority

Proposed Effective Date

Compliance with PER-003-1 shall be implemented as follows:

- In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption.

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. The Standards Committee approved the SAR for posting on July 12, 2007.
2. The SAR was posted for industry comment from July 17, 2007 through August 15, 2007.
3. Reply comments and a revised SAR were posted for a second industry comment period from January 2, 2008 through January 31, 2008.
4. Standards Committee approved moving the project into the standards development phase on April 10, 2008.
5. The Standards Committee appointed the Standard Drafting Team on June 13, 2008.

Proposed Action Plan and Description of Current Draft:

This is the first posting of the proposed standard and its associated implementation plan for a 45 day comment period, from October 21, 2009 to December 4, 2009.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Respond to comments on the first draft of the proposed standard, revise standard and post for a 30 day comment period	February 1, 2010
2. Respond to comments on the second draft of the proposed standard	May 1, 2010
3. Obtain the Standards Committee's approval to move the standard forward to balloting.	June, 2010
4. Post the standard and implementation plan for a 30-day pre-ballot review.	July 1, 2010
5. Conduct an initial ballot for ten days.	August 1, 2010
6. Respond to comments submitted with the initial ballot.	September 15, 2010
7. Conduct a recirculation ballot for ten days.	September 16, 2010
8. BOT adoption.	November. 2010

A. Introduction

1. **Title:** **Operating Personnel Credentials**
2. **Number:** **PER-003-1**
3. **Purpose:** To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for control of the Bulk Electric System.
4. **Applicability:**
 - 4.1. Reliability Coordinator
 - 4.2. Transmission Operator
 - 4.3. Balancing Authority
5. **Effective Date:**
 - 5.1. In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption.

B. Requirements

- R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate: *[Risk Factor: High][Time Horizon: Real-time Operations]*
 - 1.1. Areas of Competency
 - 1.1.1. Resource and Demand Balancing
 - 1.1.2. Transmission Operations
 - 1.1.3. Emergency Preparedness and Operations
 - 1.1.4. System Operations
 - 1.1.5. Protection and Control
 - 1.1.6. Voltage and Reactive
 - 1.1.7. Interchange Scheduling and Coordination
 - 1.1.8. Interconnection Reliability Operations and Coordination
- R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain one of the following valid NERC certificates: *[Risk Factor: High][Time Horizon: Real-time Operations]*:
 - 2.1. Areas of Competency

- 2.1.1. Transmission Operations
- 2.1.2. Emergency Preparedness and Operations
- 2.1.3. System Operations
- 2.1.4. Protection and Control
- 2.1.5. Voltage and Reactive

2.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator

R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain one of the following valid NERC certificates: *[Risk Factor: High][Time Horizon: Real-time Operations]*:

3.1. Areas of Competency

- 3.1.1. Resources and Demand Balancing
- 3.1.2. Emergency Preparedness and Operations
- 3.1.3. System Operations
- 3.1.4. Interchange Scheduling and Coordination

3.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator

C. Measures

M1. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate (R1, R2, R3):

- M1.1** A list of real-time operating positions.
- M1.2** A list of real-time operating personnel assigned to its real-time operating positions.
- M1.3** A copy of each of its real-time operating personnel's NERC certificate.
- M1.4** Work schedules, work logs, or other equivalent evidence showing which real-time operating personnel were assigned to work in real-time operating positions.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Authority

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

1.2. Compliance Monitoring Period and Reset

Not Applicable

1.3. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.4. Data Retention

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall keep data or evidence to show compliance for three years or since its last compliance audit, whichever time frame is the greatest, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Reliability Coordinator, Transmission Operator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent records.

1.5. Additional Compliance Information

None.

2.0 Violation Severity Levels

R#	Lower VSL	Medium VSL	High VSL	Severe VSL
R1				The Reliability Coordinator failed to staff each real-time operating position with an individual having a valid NERC certificate as defined in Requirement R1.
R2				The Transmission Operator failed to staff each real-time operating position with an individual having a valid NERC certificate as defined in

Standard PER-003-1 — Operating Personnel Credentials Standard

				Requirement R2, Part 2.2.
R3				The Balancing Authority failed to staff each real-time operating position with an individual having a valid NERC certificate as defined in Requirement R3, Part 3.2.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1		Complete revision under Project 2007-04	Revision

Standards Announcement

Comment Period Open

October 21–November 20, 2009

Now available at: http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Project 2007-04: Certifying System Operators

The drafting team for this project is seeking comments on the following documents **until 8 p.m. EST on November 20, 2009**:

- Proposed Standard PER-003-1 — Operating Personnel Credentials
- Implementation Plan

Instructions

Please use this [electronic form](#) to submit comments. If you experience any difficulties in using the electronic form, please contact Lauren Koller at Lauren.Koller@nerc.net. An off-line, unofficial copy of the comment form is posted on the project page: http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Next Steps

The drafting team will draft and post responses to comments received during this period. The drafting team will also determine whether to post the standard for an additional comment period or seek approval from the Standards Committee to proceed to balloting.

Project Background

PER-003-0, a “Version 0” standard, requires the Reliability Coordinator, Balancing Authority, and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential. The standard is being revised to address the directives from FERC Order 693 and industry comments from Version 0. The standard will also be revised to conform to the latest version of the Reliability Standards Development Procedure and the ERO Sanctions Guidelines.

Applicability of Standards in Project

Reliability Coordinator
Transmission Operator
Balancing Authority

Standards Development Process

The [Reliability Standards Development Procedure](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

*For more information or assistance,
please contact Shaun Streeter at shaun.streeter@nerc.net or at 609.452.8060.*

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

The Certifying System Operators Standard Drafting Team thanks all commenters who submitted comments on the draft Operating Personnel Credentials standard. This standard was posted for a 30-day public comment period from October 21, 2009 through November 20, 2009. The stakeholders were asked to provide feedback on the standards through a special Electronic Comment Form. There were 41 sets of comments, including comments from more than 150 different people from over 65 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

1. The Purpose statement of the draft standard reads “To ensure that System Operators performing the reliability-related tasks’ of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System”	11
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7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area.	71
8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area.	77
9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area.	82
10. In In FERC Order 693 the Commission directed the ERO to consider “grandfathering” of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows:.....	86
11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process.	91
12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section.	100
13. In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.....	104

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

		Commenter	Organization	Industry Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Margaret Stambach	SERC Standards Review Group	X	X	X		X	X			X	X
Additional Member		Additional Organization		Region			Segment Selection						
1.	Steve Fritz	ACES Power Marketing		SERC			6						
2.	John Neagle	AECI		SERC			1, 3, 5						
3.	Greg Yackle	City of Springfield IL-CWLP		SERC			1, 3, 5, 9						
4.	David Jenkins	Dominion VP		SERC			3, 1						
5.	Jack Kerr	Dominion VP		SERC			1, 3						
6.	Devan Hoke	Duke Energy		SERC			1, 3, 5						
7.	Steve Jones	Duke Energy		SERC			1, 3, 5						
8.	Andy Burch	EEI		SERC			1, 5						
9.	Rick Myers	EEI		SERC			1, 5						
10.	Jim Case	Entergy Transmission		SERC			1, 3						
11.	Robert Wayne Mitchell	Entergy Transmission		SERC			1, 3						
12.	Brad Young	EON-US		SERC			1, 3, 5						
13.	Brian Haggard	GSOC		SERC			3						

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
14.	Paul Hodges	GSOC	SERC							3					
15.	Timmy Lejeune	LAGen/NRG Energy	SERC							1, 3, 5					
16.	Dwayne Robert	OMU	SERC							1, 3, 5					
17.	Ray Gross	PJM	SERC							2					
18.	Bill Thigpen	PowerSouth	SERC							1, 3, 5, 9					
19.	Kevin Kelly	Progress Energy	SERC							1, 3, 5					
20.	Rene Free	Santee Cooper	SERC							1, 3, 5, 9					
21.	Glenn Stephens	Santee Cooper	SERC							1, 3, 5, 9					
22.	Gene Delk	SCE&G	SERC							1, 3, 5					
23.	Steve Hebert	SCE&G	SERC							1, 3, 5					
24.	John Troha	SERC Reliability Corp.	SERC							10					
25.	Gwen Frazier	Southern Company	SERC							1, 3, 5					
26.	Robert (Rocky) Williamson	Southern Company	SERC							1,3,5					
27.	Alvis Lanton	Southern Illinois Power	SERC							1,3,5					
28.	John Rembold	Southern Illinois Power	SERC							1,3,5					
29.	Doug Bailey	TVA	SERC							1,3,5,9					
30.	Mike Fielden	TVA	SERC							1,3,5,9					
31.	Edd Forsythe	TVA	SERC							1,3,5,9					
32.	John Kell	TVA	SERC							1,3,5,9					
33.	Sue Mangum	TVA	SERC							1,3,5,9					
34.	Annette Moore	TVA	SERC							1,3,5,9					
35.	David Troy	TVA	SERC							1,3,5,9					
2.	Group	Carol Gerou	NERC Standards Review Subcommittee												X
Additional Member		Additional Organization		Region			Segment Selection								
1.	Chuck Lawrence	American Transmission Company	MRO							1					
2.	Tom Webb	WPS Corporation	MRO							4, 5, 6					
3.	Terry Bilke	Midwest ISO Inc.	MRO							2					

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
4.	Jodi Jenson	Western Area Power Administration	MRO							1, 6					
5.	Ken Goldsmith	Alliant Energy	MRO							4					
6.	Dave Rudolph	Basin Electric Power Cooperative	MRO							1, 3, 5, 6					
7.	Eric Ruskamp	Lincoln Electric System	MRO							1, 3, 5, 6					
8.	Joseph Knight	Great River Energy	MRO							1, 3, 5, 6					
9.	Joe DePoorter	Madison Gas & Electric	MRO							3, 4, 5, 6					
10.	Scott Nickels	Rochester Public Utilities	MRO							4					
11.	Terry Harbour	MidAmerican Energy Company	MRO							1, 3, 5, 6					
3.	Group	Guy Zito	Northeast Power Coordinating Council												X
Additional Member		Additional Organization		Region			Segment Selection								
1.	Alan Adamson	New York State Reliability Council, LLC		NPCC			10								
2.	Gregory Campoli	New York Independent System Operator		NPCC			2								
3.	Roger Champagne	Hydro-Quebec TransEnergie		NPCC			2								
4.	Kurtis Chong	Independent Electricity System Operator		NPCC			2								
5.	Sylvain Clermont	Hydro-Quebec TransEnergie		NPCC			1								
6.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.		NPCC			1								
7.	Brian D. Evans-Mongeon	Utility Services		NPCC			8								
8.	Peter Yost	Consolidated Edison Co. of New York, Inc.		NPCC			3								
9.	Brian L. Gooder	Ontario Power Generation Incorporated		NPCC			5								
10.	Kathleen Goodman	ISO - New England		NPCC			2								
11.	David Kiguel	Hydro One Networks Inc.		NPCC			1								
12.	Michael R. Lombardi	Notheast Utilities		NPCC			1								
13.	Randy MacDonald	New Brunswick System Operator		NPCC			2								
14.	Greg Mason	Dynergy Generation		NPCC			5								
15.	Bruce Metruck	New York Power Authority		NPCC			6								
16.	Chris Orzel	FPL Energy/NextEra Energy		NPCC			5								
17.	Robert Pellegrini	The United Illuminating Company		NPCC			1								

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
18.	Saurabh Saksena	National Grid	NPCC			1							
19.	Michael Schiavone	National Grid	NPCC			1							
20.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC			10							
21.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC			10							
4.	Group	Deb Schaneman	Platte River Power Authority Operations Group	X		X		X					
Additional Member			Additional Organization			Region			Segment Selection				
1.	Terry Baker	Platte River Power Authority	WECC			1, 3, 5							
2.	John Powell	Platte River Power Authority	WECC			1, 3, 5							
3.	Jeff Landis	Platte River Power Authority	WECC			1, 3, 5							
5.	Group	Denise Koehn	Bonneville Power Administration	X		X		X	X				
Additional Member			Additional Organization			Region			Segment Selection				
1.	Bernie O'Connell	Transmission Dispatch	WECC			1							
2.	Ted Snodgrass	Transmission Dispatch	WECC			1							
3.	Tim Loepker	Transmission Dispatch	WECC			1							
6.	Group	Lauri Jones	WECC Operations Training Subcommittee										
Additional Member			Additional Organization			Region			Segment Selection				
1.	Robert Eubank	WECC	WECC			10							
2.	Steve Owen	PSC	WECC										
3.	Brian Reich	IPCO	WECC										
4.	Richard Krajewski	PNM	WECC										
5.	Keith Carmen	TSGT	WECC										
6.	Hank LuBean	DOPD	WECC										
7.	Kristie Coco	SRP	WECC										
8.	Rich Brock	PSC	WECC										

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
9.	Warren Maxvill	AVA	WECC												
10.	Bruce Fauvelle	AESO	WECC												
11.	Pete Gibson	WECC-RC	WECC												
12.	Brett Hallborg	BCTC	WECC												
13.	Stephanie Conn	WAPA	WECC												
14.	Bill Simmons	SMUD	WECC												
15.	Robert Staten	PSC	WECC												
16.	Robert Williams	Pacific Corp	WECC												
7.	Group	Kenneth D. Brown	Public Service Enterprise Group Inc. Companies	X		X									
Additional Member			Additional Organization			Region			Segment Selection						
1.	Ron Wharton	PSE&G	RFC										1, 3		
2.	Jim Hebson	ER&T	RFC										6		
3.	Tom Piascik	PSEG Fossil	RFC										5		
8.	Group	Sam Ciccone	FirstEnergy	X		X	X	X	X						
Additional Member			Additional Organization			Region			Segment Selection						
1.	Jim Eckels	FirstEnergy	RFC												
2.	John Wilson	FirstEnergy	RFC												
3.	John Martinez	FirstEnergy	RFC												
4.	Steve Megay	FirstEnergy	RFC												
5.	Andy Hunter	FirstEnergy	RFC												
6.	Dave Folk	FirstEnergy	RFC												
9.	Group	Jason L. Marshall	Midwest ISO Stakeholder Standards Collaborators		X										
Additional Member			Additional Organization			Region			Segment Selection						
1.	Michael J Ayotte	ITC Holdings	RFC										1		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
2.		Barb Kedrowski	We Energies	RFC					3, 4, 5					
3.		Joe Knight	Great River Energy	MRO					1, 3, 5					
4.		Alisha Anker	Prairie Power, Inc.	SERC					3, 4					
5.		Jim Cyrulewski	JDRJC Associates, LLC	RFC					8					
10.	Group	Ben Li	ISO RTO Council Standards Review Committee		X									
Additional Member		Additional Organization		Region			Segment Selection							
1.		Mark Thompson	AESO	WECC			2							
2.		Lourdes Estrada-Saliner	CAISO	WECC			2							
3.		Steve Myers	ERCOT	ERCOT			2							
4.		Matt Goldberg	ISONE	NPCC			2							
5.		Bill Phillips	MISO	MRO			2							
6.		Jim Castle	NYISO	NPCC			2							
7.		Patrick Brown	PJM	RFC			2							
8.		Charles Yeung	SPP	SPP			2							
11.	Group	JT Wood	Southern Company Transmission	X		X								
Additional Member		Additional Organization		Region			Segment Selection							
1.		Hugh Frances		SERC			1							
12.	Group	Richard J. Kafka	Pepeco Holdings, Inc - Affiliates	X										
Additional Member		Additional Organization		Region			Segment Selection							
1.		David Thorne	Potomac Electric Power Company	RFC			1							
2.		Valerie Hildebrand	Potomac Electric Power Company	RFC			1							
3.		Vic Davis	Delmarva Power & Light	RFC			1							
4.		John Keller	Atlantic City Electric	RFC			1							
13.	Individual	Ted Bialy	Brookfield Renewable Power Inc	X				X						

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
14.	Individual	Sandra Shaffer	PacifiCorp	X		X		X	X					
15.	Individual	Kelly Blackmer	NERC PCGC											X
16.	Individual	Brent Ingebrigtsen	E.ON U.S. LLC	X		X		X	X					
17.	Individual	Mark L Bennett	Gainesville Regional Utilities	X		X		X					X	
18.	Individual	Joylyn Stover	Consumers Energy Company			X	X	X						
19.	Individual	Mark Thompson	Alberta Electric System Operator		X									
20.	Individual	Kasia Mihalchuk	Manitoba Hydro	X		X		X	X					
21.	Individual	Alice Murdock	Xcel Energy	X		X		X	X					
22.	Individual	Lauri Jones	Pacific Gas and Electric Company	X		X		X						
23.	Individual	Brian Reich	IPCo			X	X							
24.	Individual	Gordon Rawlings	BCTC	X	X									
25.	Individual	Joe O'Brien	NIPSCO	X		X		X	X					
26.	Individual	Alan Gale	City of Tallahassee (TAL)			X		X						
27.	Individual	Kathleen Goodman	ISO New England Inc.		X									
28.	Individual	Jonathan Appelbaum	Long Island Power Authority	X										
29.	Individual	Ron Gunderson	Nebraska Public Power District	X		X		X						

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
30.	Individual	Edward Davis	Entergy Services	X		X		X	X					
31.	Individual	James H. Sorrels, Jr.	American Electric Power (AEP)	X		X		X	X					
32.	Individual	Dan Rochester	Independent Electricity System Operator		X									
33.	Individual	James Starling	South Carolina Electric and Gas	X		X		X	X					
34.	Individual	Laura Zotter	ERCOT ISO		X									
35.	Individual	Greg Rowland	Duke Energy	X		X		X	X					
36.	Individual	Scott Barfield-McGinnis	Georgia System Operations Corporation			X	X							
37.	Individual	Annette L. Moore	Tranmission and Reliability (TRO), TVA										X	
38.	Individual	Roger Champagne	Hydro-Québec TransEnergie (HQT)	X										
39.	Individual	Jason Shaver	American Transmission Company	X										
40.	Individual	Martin Bauer	US Bureau of Reclamation					X						

1. The Purpose statement of the draft standard reads “To ensure that System Operators performing the reliability-related tasks’ of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System”.

Do you agree with the Purpose as written for this standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 1 Comment
E.ON U.S. LLC		
Manitoba Hydro	No	: The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
Response:		
American Transmission Company	No	ATC is concerned that the proposed “Purpose” statement does not align with the requirements and measures as proposed. ATC believes that this standard should focus on requiring System Operators (Associated with RC, TOP and BA) to be NERC certified and should not directly address the competency issue. We are making this statement because we believe that the minimum competency issue is adequately covered in the NERC System Operator Certification program and therefore its inclusion in this standard is both duplicative and confusing. Does the SDT have any members from the NERC System Operation Certificate program or has the team reached out to that group while writing this standard? NERC’s System Operation Certificate program includes a test which is developed by industry experts and overseen by NERC with a focus on specific competencies based on NERC Reliability Standards. Since those competencies are already documented and covered in the Certificate program it is duplicative to include them within this standard. Suggested Modification: (Purpose Statement) “To ensure System Operators are NERC Certified.” We suggest

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
		deleting the phrase “performing the reliability-related tasks of the RC, BA and TOP” because the definition of System Operator is descriptive enough to cover this issue. In addition, the Applicability section already identifies which entities have to comply so we did not find it necessary to repeat them in the Purpose statement. Could the SDT identify the deficiencies with the definition of System Operator which cases them to include the additional descriptive language?
Response:		
Long Island Power Authority	No	Certification process is in capitals even though it is not a defined term in the NERC Glossary. The term should either be defined or changed to lower case.
Response:		
IPCo	No	demonstration of competencies should not be part of of this standard.
Response:		
ERCOT ISO	No	ERCOT ISO recommends the following change in wording:”To ensure that System Operators performing the functions of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain the associated valid NERC certificate.”
Response:		
Consumers Energy Company	No	In order for this to make sense, I would replace the word “when” with “prior to.”
Response:		
NIPSCO	No	Passing a NERC Operating Certification exam does not ensure competency in all listed areas since one could perform poorly in one area of the exam and still obtain a credential. At the very least the word “competency” should be replaced by “minimum competency” here.
Response:		
Transmission and Reliability	No	Recommend the statement be demonstrated minimum competency through the certification process. Certification is a minimum competency and does not fully demonstrate an operator’s ability and competency

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
(TRO), TVA		pertaining to real-time operations of the BES.
Response:		
ISO RTO Council Standards Review Committee	No	The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We are concerned that the stated purpose to demonstrate “competency through the Certification Process” is not fulfilled by the proposed requirements. Demonstration of competency cannot be based solely on the NERC Operator Certification Process. The successful completion of 200 continuing education hours over a three year period does not measure two other important factors tied to competency; possessing adequate skills, and exhibiting appropriate behaviors. Demonstration of competency is mandated through PER-005-1. To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest “for the control of the Bulk...” be changed to “for the real-time operation of the Bulk...” AESO has also submitted its individual comments that are not a part of these joint comments. Please note their additional comments to PER-003-1.
Response:		
Platte River Power Authority Operations Group	No	The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not applicable to. It should read: To ensure that Reliability Coordinator, Transmission Operator and Balancing Authority system operators...Certification Process is capitalized indicating it is a defined term in the NERC Glossary of Terms which it is not. The standard drafting team (SDT) should either define the term or change it to say ...through the NERC system operator certification program.
Response:		
Midwest ISO Stakeholder Standards Collaborators	No	The purpose of this standard as written is OK but could be made simpler. A more simple and clearer purpose is: “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified”.
Response:		
Alberta Electric System Operator	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.

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Organization	Yes or No	Question 1 Comment
BCTC	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
Pacific Gas and Electric Company	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
WECC Operations Training Subcommittee	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
Response:		
US Bureau of Reclamation	No	The requirement is to obtain the certification. The purpose is to have demonstrated minimum competency in the specific areas defined in the standard.
Response:		
Xcel Energy	No	The standard relates to operating personnel credentials. "Competencies" are addressed in the training standard as well as whatever the governing document is for the operator certification minimum criteria, not this standard. Suggested purpose: To ensure that System Operators performing the BES reliability related real time operating tasks of a Reliability Operator, Balancing Authority, or Transmission Operator possess the required level of NERC Certification.
Response:		
Georgia System Operations Corporation	No	The term real-time operating position needs to be defined. The term system operators in the NERC glossary refer to generation operators and this standard does not. Should the glossary be changed to remove generator operators?
Response:		
Independent Electricity System	No	The use of the terms "demonstrated competency" in this context is perhaps misleading and inappropriate. It

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Operator		<p>is generally accepted in the industry that a person who is deemed to be competent, or has obtained competency or is able to demonstrate competency in performing a job consisting of a number of tasks encompasses a combination of knowledge, skills and behavior. It is possible for any person to write and pass a NERC certification exam without ever having performed a reliability related task. The purpose of this standard is to ensure that operators performing reliability related tasks are appropriately certified. Competency in performing reliability related tasks is ensured through operator training which is addressed in Standard PER-005-01. The SDT commentary in Question #10 of this comment form seems to acknowledge the fact that obtaining NERC Certification only ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations and that passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator. Suggested alternative wording for the "Purpose" statement: "To ensure that System Operators performing the reliability-related tasks' of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain certification through the NERC Certification Process".</p>
Response:		
Hydro-Québec TransEnergie (HQT)	No	<p>There is concern over the use of "control of the Bulk Electric System". Revision of the standard used "real-time operation of the Bulk Electric System". What is the definition of "control of the Bulk Electric System"? Clarify "control". "Control" implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define "control" for the RC's region. To be more complete and accurate, suggest "for the control of the Bulk..." be changed to "for the real-time operation of the Bulk..." Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. It is our opinion that they don't need to be certified. What is the opinion of the SDT?</p>
Response:		
Northeast Power Coordinating Council	No	<p>There is concern over the use of "control of the Bulk Electric System". Revision of the standard used "real-time operation of the Bulk Electric System". What is the definition of "control of the Bulk Electric System"? Clarify "control". "Control" implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define "control" for the RC's region. To be more complete and accurate, suggest "for the control of the Bulk..." be changed to "for the real-time operation of the Bulk..." Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. The wording in the purpose of PER-003-1 does not align with the requirements or the measures outlined in PER-003-1. The purpose of PER-003-1 discusses performing reliability related tasks and demonstrating</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
		<p>competency. The purpose of PER-003-1 is more like the PER-005 requirement to verify each operator's ability to perform reliability related tasks. The purpose of PER-003-1 should be straightforward: ensure each RC, BA, and TOP staffs their real-time operating positions responsible for control of the BES with NERC Certified System Operators. "And maintain competency and proficiency by participating in a training program that meets the requirements the System Personnel Training Reliability Standards" could be added.</p>
Response:		
ISO New England Inc.	No	<p>To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest "for the control of the Bulk..." be changed to "for the real-time operation of the Bulk..."</p>
Response:		
Duke Energy	No	<p>We believe the Purpose statement should be reworded to reflect that System Operators demonstrate a minimum level of competency by obtaining and maintaining NERC certification. Suggested rewording:"To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated minimum competency by obtaining and maintaining a valid NERC Certificate when filling a real-time operating position responsible for control of the Bulk Electric System."</p>
Response:		
Entergy Services	No	<p>We do not feel that a System Operator has "demonstrated competency" simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10 that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations. In the purpose statement above, the phrase "have demonstrated competency" should be changed to: "have achieved a minimum level of knowledge".In addition, our group would like clarification on some of the terms used in the purpose statement:"real-time operating position". The Glossary of Terms Used in Reliability Standards defines "real time" as "present time as opposed to future time", but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a "real-time operating position"? If so, then the trainee would require certification before being trained in real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. "System Operator". System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
		<p>the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers."Certification Process". This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing "Certification Process" with "system operator certification program", a more recognizable term.</p>
Response:		
SERC Standards Review Group	No	<p>We do not feel that a System Operator has "demonstrated competency" simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10A. that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations." In the purpose statement above, the phrase "have demonstrated competency" should be changed to: "have achieved a minimum level of knowledge".In addition, our group would like clarification on some of the terms used in the purpose statement:"real-time operating position". The Glossary of Terms Used in Reliability Standards defines "real time" as "present time as opposed to future time", but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a "real-time operating position"? If so, then the trainee would require certification before being trained in performing real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. "System Operator". System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers."Certification Process". This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing "Certification Process" with "system operator certification program", a more recognizable term.</p>
Response:		
American Electric Power (AEP)	No	<p>While AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that this best be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual.PER-003-</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
		<p>0 is correctly focused only on exactly who needs to be certified and what certification is necessary. The specific competencies are best elaborated in the referenced manual and articulated in PER-002 and -005. However, there are a few changes to PER-003-0 that we do recommend, which will be covered in the questions that follow. The high level identification of competencies, consistent with FERC Order 693, does not address the unintended competency training area disconnect involving credential maintenance in the System Operator Certification Program Manual. There is presently no mechanism in the certification credential maintenance process to ensure a specific type of operator is getting the necessary minimum training in the competency areas identified for his/her credential. As long as an operator acquires enough Continuing Education (CE) hours on recognized training topics in Appendix A of the System Operator Certification Program Manual, along with the minimum simulation and standards requirement, he/she can successfully renew a specific credential. For example, there is presently no mechanism or measure to stop a Reliability Coordinator operator from taking all continuing education training in the area of Interchange Scheduling and Coordination, which is more pertinent to a Balancing & Interchange operator. Even if the initial RC exam content outline covers the required competency areas stated, the CE maintenance/renewal process allows a gap to neglect training in the required areas. Therefore, the Program Manual and other PER training Standards will need to address this gap in the future to ensure compliance with FERC order 693. By passing the initial NERC certification test, an operator merely demonstrates minimum knowledge in the specific credential area, as supported by the exam content outline and related questions. The identified competencies and measure of demonstration relevant to the specific credential areas should be addressed in the System Operator Certification Program Manual, and standards PER-002 and PER-005-1. PER-003-1 should simply require an operator, who is performing the real-time reliability related tasks related to the registered entity's applicability, to hold the appropriate valid certification credential.</p>
Response:		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	
City of Tallahassee (TAL)	Yes	
Gainesville Regional Utilities	Yes	
Nebraska Public Power District	Yes	

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Organization	Yes or No	Question 1 Comment
NERC PCGC	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
Public Service Enterprise Group Inc. Companies	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
FirstEnergy	Yes	Although we agree with the Purpose statement as proposed, we ask the SDT to consider changing the phrase "Certification Process" to the official name of the program as shown on NERC's website: "System Operator Certification Program".
Response:		
NERC Standards Review Subcommittee	Yes	This "purpose" statement is clear, direct and should be the basis of this proposed NERC Standard. It simply states that a RC, BA and TOP shall ensure that all Real-time System Operator positions have a valid NERC certificate.
Response:		

2. In The effective date of the draft standard reads “In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption”.

Do you agree with the effective date as written for this standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 2 Comment
E.ON U.S. LLC		
American Electric Power (AEP)		If any existing certifications are significantly modified or if additional certifications are added in the future, preparation time well beyond six months will be necessary for registered entities to become fully compliant.
Response:		
Hydro-Québec TransEnergie (HQT)	No	As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System.
Northeast Power Coordinating Council	No	As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System.
Response:		
Platte River Power Authority Operations Group	No	Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and

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Organization	Yes or No	Question 2 Comment
		5 the implementation of this standard should not take effect until PER-005-1 is effective.
Response:		
ISO RTO Council Standards Review Committee	No	If compliance does not require extensive training and/or documentation changes from existing available training, then six months is appropriate. However, we reserve our right to change the response to this question dependent upon the final version of the proposed requirements.
Response:		
Brookfield Renewable Power Inc	No	Uncertain if my Operators need certification. If they do the timelines are too short to meet the standard.
Response:		
BCTC	Yes	
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Consumers Energy Company	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	

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Organization	Yes or No	Question 2 Comment
Independent Electricity System Operator	Yes	
IPCo	Yes	
ISO New England Inc.	Yes	
Long Island Power Authority	Yes	
Manitoba Hydro	Yes	
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
NIPSCO	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
Public Service Enterprise Group Inc. Companies	Yes	
SERC Standards Review Group	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

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Organization	Yes or No	Question 2 Comment
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	
American Transmission Company	Yes	ATC does agree with the proposed effective date if the evidence to demonstrate compliance is limited to showing that our System Operators have a valid NERC Certificate.
Response:		
NERC Standards Review Subcommittee	Yes	N/A
Alberta Electric System Operator	Yes	Please see the RTO/ISO SRC comments.
Response:		
Midwest ISO Stakeholder Standards Collaborators	Yes	These changes do not represent a significant change from what industry currently practices so a long implementation is not necessary.
Response:		

3. Requirement R1 of the draft standard reads:

R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate.

1.1 Areas of Competency

- 1.1.1 Resources and Demand Balancing
- 1.1.2 Transmission Operations
- 1.1.3 Emergency Preparedness and Operations
- 1.1.4 System Operations
- 1.1.5 Protection and Control
- 1.1.6 Voltage and Reactive
- 1.1.7 Interchange Scheduling and Coordination
- 1.1.8 Interconnection and Reliability Operations and Coordination

Do you agree with Requirement R1 as written for this standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 3 Comment
PacifiCorp		
Public Service Enterprise Group Inc. Companies	No	1.1.4 System Operations. This term needs to be specifically defined, either in this Standard or the NERC Glossary. Absent a clear definition, this term introduces a vagueness into the proposed standard that will make both compliance and enforcement problematic. The definition should be vetted in an open process so that industry comment can be obtained.

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Organization	Yes or No	Question 3 Comment
Response:		
IPCo	No	Area of competencies are not part of the certification.
Response:		
Independent Electricity System Operator	No	As stated in question #1, the use of the terms “demonstrated competency” is not appropriate. However, those terms have now been combined with the word “minimum”, which now poses the question, how does one define minimum competency? The areas of competency listed simply reflect the grouping and organization of NERC Standards which the Reliability Coordinator Certification exam is based upon. If this standard is really intended to prescribe which NERC Standards each certification exam is to be based upon perhaps it should simply state that.Suggested alternative wording of R1:R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC Reliability Operator certificate through the NERC Certification Process. The Reliability Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:1.1 Areas of Knowledge 1.1.1 Resources and Demand Balancing 1.1.2 Transmission Operations 1.1.3 Emergency Preparedness and Operations 1.1.4 System Operations 1.1.5 Protection and Control 1.1.6 Voltage and Reactive 1.1.7 Interchange Scheduling and Coordination 1.1.8 Interconnection and Reliability Operations and Coordination
Response:		
Hydro-Québec TransEnergie (HQT)	No	As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard.The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority.”Minimum competency” must be defined, and how it relates to continuing education. Requirement R1, item 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications.

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Organization	Yes or No	Question 3 Comment
		<p>PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both "Transmission Operations" (1.1.2) and "System Operations" (1.1.4) are listed. Clarify the terms "System Operations" in 1.1.4, and "Transmission Operations", and clarify the differences between them. Also, in R2 and R3 there are items 2.2 and 3.2 which list the certificates. Wouldn't it be appropriate to have an item "1.2 Certificates" for R1 as well?</p>
<p>Response:</p>		
<p>ISO New England Inc.</p>	<p>No</p>	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard.</p>
<p>Response:</p>		
<p>Northeast Power Coordinating Council</p>	<p>No</p>	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? Requirement R1,</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
		<p>sub-requirement 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both "Transmission Operations" (1.1.2) and "System Operations" (1.1.4) are listed. Clarify the terms "System Operations" in 1.1.4, and "Transmission Operations", and clarify the differences between them.</p>
Response:		
Nebraska Public Power District	No	<p>Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read: R1. "Each Reliability Coordinator shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have a valid NERC Reliability Operator certificate which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position." NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours,</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
		<p>and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and concise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual.</p>
Response:		
NERC Standards Review Subcommittee	No	<p>Concerning this Requirement, the MRO NERC Standards Review Subcommittee (NSRS) has the following concerns and request that the requirement is rewritten to read: R1. “Each Reliability Coordinator shall staff its real-time operating positions with System Operators that have obtained a valid NERC Reliability operator certificates which contain competencies as defined by the NERC System Operator Certification Program. The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. 1. The purpose of this standard is to ensure System Operators performing reliability-related tasks have demonstrated competency through a certification process. In other words, Real-time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has led to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted. 3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test than to update a NERC Standard. 4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
		<p>valid NERC certificate. Currently, the NERC SOCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCED education program. 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.</p>
Response:		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency for the Reliability Operator and maintaining certification is covered under PER-005-1. The requirement should read: Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain a valid NERC Reliability Operator certificate.</p>
Response:		
Brookfield Renewable Power Inc	No	Do not believe it applies to us.
Response:		
ERCOT ISO	No	ERCOT ISO doesn't agree that competencies should be defined in the standard since they are already defined in the certification process.
Response:		
Georgia System Operations Corporation	No	<p>Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Reliability Coordinator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain a valid NERC Reliability Operator Certificate.</p>
Response:		

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Organization	Yes or No	Question 3 Comment
Long Island Power Authority	No	LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Reliability Coordinator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess a valid and current NERC Reliability Operator Certificate."
Response:		
E.ON U.S. LLC	No	Operators must successfully complete the NERC Reliability Operator certification process. Thus, adding "Areas of Competency" in the requirement is redundant and only confuses what is needed for compliance. If "demonstration of minimum competency" is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R1 be revised to: Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.
Response:		
American Electric Power (AEP)	No	Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R1 should merely state that each registered applicable Reliability Coordinator (RC) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R1 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.
Response:		

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Organization	Yes or No	Question 3 Comment
American Transmission Company	No	Please see are specific comments in question 4. Proposed Modification: Each RC shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate.ATC suggest that the list of minimum competency be deleted.
Response:		
NIPSCO	No	R1 should be replaced by “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have a valid NERC Reliability Operator certificate”.Then the “Reliability Operator Certificate” and certification process should be defined in the Glossary of Terms or described within the standard.
Response:		
US Bureau of Reclamation	No	The certification should be specific in the citation by referring to the certification as N/RA/RC certification as appropriate for Reliability Coordinators. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requierment, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.
Response:		
ISO RTO Council Standards Review Committee	No	The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification.As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency.The inclusion of the Areas of Competency should not be included in this requirement. There are no measures for this.. The inclusion of this list in the standard adds confusion and uncertainty in the demonstration of compliance with requirement R1.As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the

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Organization	Yes or No	Question 3 Comment
		"responsibility for real-time operation" phrase is key to any certification Standard.
Response:		
Consumers Energy Company	No	The extra verbiage under "Areas of Competency" is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.
Response:		
Pepco Holdings, Inc - Affiliates	No	The language in the Requirement doesn't match the language in the Measure. The sentence in R1 should read "...by obtaining and maintaining a valid NERC Reliability Operator certificate." Not "to obtain and maintain."
Response:		
Xcel Energy	No	The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table.
Response:		
Manitoba Hydro	No	The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
Response:		

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Organization	Yes or No	Question 3 Comment
Alberta Electric System Operator	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
Response:		
BCTC	No	The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
Response:		
NERC PCGC	No	The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certificate. This certificate demonstrates competencies through the NERC certification process." Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.
Response:		
Pacific Gas and Electric Company	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.

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Organization	Yes or No	Question 3 Comment
WECC Operations Training Subcommittee	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
Response:		
Midwest ISO Stakeholder Standards Collaborators	No	The standard as written requires minimum competency. "At least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate." As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.
Response:		
Transmission and Reliability (TRO), TVA	No	The standard as written requires minimum competency. Suggest "at least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate." While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.

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Organization	Yes or No	Question 3 Comment
Response:		
Entergy Services	No	To “obtain and maintain a valid NERC Reliability Operator certificate” (as stated in R1) a System Operator is required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has “demonstrated minimum competency” in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate”.
SERC Standards Review Group	No	To “obtain and maintain a valid NERC Reliability Operator certificate” (as stated in R1) a System Operator is required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has “demonstrated minimum competency” in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate”.
Response:		
FirstEnergy	No	We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
		<p>the verbiage in main requirements R1, R2, and R3 that states "... who have demonstrated minimum competency in the areas listed to obtain and maintain ...". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: "... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ..."</p>
Response:		
Duke Energy	No	<p>We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. Suggested rewording: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator Certificate."</p>
Response:		
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Gainesville Regional Utilities	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

4. Requirement R2 of the draft standard reads:

R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

2.1 Areas of Competency

- 2.1.1 Transmission Operations
- 2.1.2 Emergency Preparedness and Operations
- 2.1.3 System Operations
- 2.1.4 Protection and Control
- 2.1.5 Voltage and Reactive

2.2 Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator"

Do you agree with Requirement R2 as written for this standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 4 Comment
IPCo	No	area of competencies should not be included in this standard.
Response:		
Hydro-Québec TransEnergie (HQT)	No	As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator functions and other functions. For example, there may be

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Organization	Yes or No	Question 4 Comment
		<p>multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority.” Minimum competency” must be defined, and how it relates to continuing education. Requirement R2, item 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both “Transmission Operations” (2.1.1) and “System Operations” (2.1.3) are listed. Clarify the terms “System Operations” in 2.1.3, and “Transmission Operations”, and clarify the differences between them.</p>
Response:		
ISO New England Inc.	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
Response:		
Northeast Power Coordinating	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple</p>

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Organization	Yes or No	Question 4 Comment
Council		<p>desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? Requirement R2, sub-requirement 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both "Transmission Operations" (2.1.1) and "System Operations" (2.1.3) are listed. Clarify the terms "System Operations" in 2.1.3, and "Transmission Operations", and clarify the differences between them.</p>
Response:		
Nebraska Public Power District	No	<p>Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read: R2. "Each Transmission Operator shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position. 2.1 Certificates Reliability Operator Balancing, Interchange and Transmission Operator Transmission Operator" NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons. 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real</p>

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Organization	Yes or No	Question 4 Comment
		<p>Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted.3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard.4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and concise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual.</p>
Response:		
NERC Standards Review Subcommittee	No	<p>Concerning this Requirement, the MRO NSRS has the following concerns and request that the requirement is rewritten to read:R2. “Each Transmission Operator shall staff its real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.2.2 Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission OperatorThe MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
		<p>outlined in FERC Order 693 for the following reasons.1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real- time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted.3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test then to update a NERC Standard.4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program. 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.</p>
Response:		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency and maintaining certification for the Transmission Operator is covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates.</p>
Response:		
ERCOT ISO	No	<p>ERCOT ISO doesn’t agree that competencies should be defined in the standard since they are already defined in the certification process.</p>

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Organization	Yes or No	Question 4 Comment
Response:		
Entergy Services	No	For the reasons stated in question #3 above, we suggest R2 be changed to the following: "Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator"
SERC Standards Review Group	No	For the reasons stated in question #3 above, we suggest R2 be changed to the following: "Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator"
Response:		
Georgia System Operations Corporation	No	Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates: 1. Reliability Operator 2. Balancing, Interchange, and Transmission Operator 3. Transmission Operator 4. Balancing and Interchange Operator
Response:		
US Bureau of Reclamation	No	It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requirement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.
Response:		
Long Island Power Authority	No	LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the

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Organization	Yes or No	Question 4 Comment
		Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Transmission Operator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:"
Response:		
E.ON U.S. LLC	No	Operators must hold one of the listed NERC certificates. Thus, adding "Areas of Competency" in the requirement is redundant and only confuses what is needed for compliance. If "demonstration of minimum competency" is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R2. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R2 be revised to: Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R2.2.
Response:		
American Electric Power (AEP)	No	Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R2 should merely state that each registered applicable Transmission Operator (TO) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Transmission Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R2 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.
Response:		
Public Service Enterprise Group Inc. Companies	No	Please see response to question 3 with respect to the need to define System Operations.

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Organization	Yes or No	Question 4 Comment
Response:		
NIPSCO	No	R2 should be replaced by “Each Transmission Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:” and leave the contents of 2.2. (listing the certificates is a nice addition to the standard). Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard.
Response:		
Independent Electricity System Operator	No	Same comments as in question #4.Suggested alternative wording of R2:R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Transmission Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:2.1 Areas of Knowledge 2.1.1 Transmission Operations 2.1.2 Emergency Preparedness and Operations 2.1.3 System Operations 2.1.4 Protection and Control 2.1.5 Voltage and Reactive2.2 Valid Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator
Response:		
ISO RTO Council Standards Review Committee	No	The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification.As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency.As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.
Response:		
Consumers Energy Company	No	The extra verbiage under “Areas of Competency” is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified.

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Organization	Yes or No	Question 4 Comment
		Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.
Response:		
Pepco Holdings, Inc - Affiliates	No	The language in the Requirement doesn't match the language in the Measure. The sentence in R2 should read "...by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and maintain."
Response:		
Xcel Energy	No	The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Transmission Operator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table.
Response:		
Manitoba Hydro	No	The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
Response:		
Alberta Electric System Operator	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator Add sub-requirement 2.1 as an exception

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Organization	Yes or No	Question 4 Comment
		to R2 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
Response:		
BCTC	No	The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
Response:		
NERC PCGC	No	The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read "Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC TO Certificate. This certificate demonstrates competencies through the NERC certification process." Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.
Response:		
Pacific Gas and Electric Company	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
Response:		
WECC Operations Training Subcommittee	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
		<p>competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
Response:		
<p>American Transmission Company</p>	<p>No</p>	<p>The proposed language could be read to have multiple compliance obligations and should be re-written to have single compliance obligations. The two compliance obligations: A) Transmission Operators have NERC Certified System Operators B) Transmission Operators have to demonstrate minimum competency in specific areas. Item (A) Based on the proposed measures entities can demonstrate that they have NERC Certified System Operators by producing valid NERC certificates. Item (B) ATC believes that the phrase “demonstration of minimum competency” can be deleted because having NERC Certified System Operators means having System Operators that have these minimum competencies. Does this phrase require us to show evidence above and beyond the NERC Certificate? If so, then the Measures do not provide any information on the types of evidence that could be used for compliance. If not, then it is our suggestion that the SDT deleted the minimum competency list from the requirement because it is duplicative with having NERC Certified System Operators. It’s our understanding that the team is including this language “demonstrate minimum competency” to address a FERC directive but we believe that the best approach is to provide FERC with a description of the NERC Certification program and exclude the minimum competency list from this standard. We proposed the following modifications: Transmission Operators shall staff its real-time operating positions with System Operators that have one of the following valid NERC Certification. Reliability Operator Balancing, Interchange and Transmission Operator Transmission Operator ATC also recommends the removal of the phrase “obtain and maintain” because the requirement requires a valid NERC Certificate. All NERC Certificates have an effective period, and is therefore redundant to require System Operators to “obtain and maintain” their NERC Certificate because an entity would be non-compliant with this Standard if they allow an individual to work the real-time desk without a valid NERC Certificate.</p>
Response:		
<p>Midwest ISO Stakeholder Standards Collaborators</p>	<p>No</p>	<p>The standard as written requires minimum competency. “At least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: “Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate.” As the requirement is currently written, one</p>

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Organization	Yes or No	Question 4 Comment
		<p>could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.</p>
<p>Response:</p>		
<p>Tranmission and Reliability (TRO), TVA</p>	<p>No</p>	<p>The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.</p>
<p>Response:</p>		
<p>FirstEnergy</p>	<p>No</p>	<p>We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states "... who have demonstrated minimum competency in the areas listed to obtain and maintain ...". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: "... who have</p>

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Organization	Yes or No	Question 4 Comment
		demonstrated minimum competency in the areas listed by obtaining and maintaining ..."
Response:		
Duke Energy	No	We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording:"Each Transmission Operator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:"
Response:		
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Gainesville Regional Utilities	Yes	
PacifiCorp	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
Brookfield Renewable Power Inc	Yes	I believe our internal testing is enough for our small transmission system.
Response:		

5. Requirement R3 of the draft standard reads:

R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

3.1 Areas of Competency

- 3.1.1 Resources and Demand Balancing
- 3.1.2 Emergency Preparedness and Operations
- 3.1.3 System Operations
- 3.1.4 Interchange Scheduling and Coordination

3.2 Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator"

Do you agree with Requirement R3 as written for this standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 5 Comment
IPCo	No	area of competencies should not be part of this standard
Response:		
Hydro-Québec TransEnergie (HQT)	No	As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority functions and other functions. For example, there may be

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Organization	Yes or No	Question 5 Comment
		<p>multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. Requirement R3, item 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. What is the difference between these certificates? "Balancing, Interchange and Transmission Operator" and "Balancing and Interchange Operator"</p>
Response:		
ISO New England Inc.	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard.</p>
Response:		
Northeast Power Coordinating	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority and other functions. For example, there may be multiple</p>

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Organization	Yes or No	Question 5 Comment
Council		<p>desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? Requirement R3, sub-requirement 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.</p>
Response:		
City of Tallahassee (TAL)	No	BA's should have knowledge of Voltage and Reactive Control.
Response:		
Nebraska Public Power District	No	<p>Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read: R3. "Each Balancing Authority shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position. 3.1 Certificates Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange Operator" NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the</p>

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Organization	Yes or No	Question 5 Comment
		<p>following reasons.1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted.3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard.4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and concise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual.</p>
Response:		
NERC Standards Review Subcommittee	No	Concerning this Requirement, the MRO NSRS has the following concerns and request that the requirement is rewritten to read:R3. “Each Balancing Authority shall staff its real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.3.2 Certificates o Reliability Operator o

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Organization	Yes or No	Question 5 Comment
		<p>Balancing, Interchange and Transmission Operator o Balancing and Interchange OperatorThe MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real-time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted.3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test then to update a NERC Standard.4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program. 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.</p>
Response:		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency and maintaining certification for the Balancing Authority is covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates.</p>
Response:		

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Organization	Yes or No	Question 5 Comment
ERCOT ISO	No	ERCOT ISO doesn't agree that competencies should be defined in the standard since they are already defined in the certification process.
Response:		
Entergy Services	No	For the reasons stated in question #3 above, we suggest R3 be changed to the following:"Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator"
SERC Standards Review Group	No	For the reasons stated in question #3 above, we suggest R3 be changed to the following:"Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator"
Response:		
Georgia System Operations Corporation	No	Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording.Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates:1. Reliability Operator2. Balancing, Interchange, and Transmission Operator3. Balancing and Interchange Operator4. Transmission Operator
Response:		
US Bureau of Reclamation	No	It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requirement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.

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Organization	Yes or No	Question 5 Comment
Response:		
Long Island Power Authority	No	LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Balancing Authority shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:"
Response:		
E.ON U.S. LLC	No	Operators must hold one of the listed NERC certificates. Thus, adding "Areas of Competency" in the requirement is redundant and only confuses what is needed for compliance. If "demonstration of minimum competency" is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R3. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R3 be revised to: Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R3.2.
Response:		
American Electric Power (AEP)	No	Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R3 should merely state that each registered applicable Balancing Authority (BA) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Balancing and Interchange Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R1 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.

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Organization	Yes or No	Question 5 Comment
Response:		
American Transmission Company	No	Please see are specific comments in question 4. Proposed Modification: Each BA shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate. Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange OperatorATC suggest that the list of minimum competency be deleted.
Response:		
Public Service Enterprise Group Inc. Companies	No	Please see response to question 3 with respect to the need to define System Operations.
Response:		
NIPSCO	No	R3 should be replaced by “Each Balancing Authority Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:” and leave the contents of 3.2. (listing these certificates is a nice addition to the standard) Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard.
Response:		
Independent Electricity System Operator	No	Same comments as in question #4.Suggested alternative wording of R3:R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Balancing and Interchange Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:3.1 Areas of Knowledge 3.1.1 Resources and Demand Balancing 3.1.2 Emergency Preparedness and Operations 3.1.3 System Operations 3.1.4 Interchange Scheduling and Coordination3.2 Valid Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator
Response:		
ISO RTO Council Standards Review Committee	No	The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification.As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency.As the Standard is

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Organization	Yes or No	Question 5 Comment
		currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard.
Response:		
Pepco Holdings, Inc - Affiliates	No	The language in the Requirement doesn't match the language in the Measure. The sentence in R3 should read "...by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and maintain."
Response:		
Xcel Energy	No	The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. Balancing Authority This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table.
Response:		
Manitoba Hydro	No	The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
Response:		
Alberta Electric System Operator	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT

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Organization	Yes or No	Question 5 Comment
		<p>does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each BA shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator Add sub-requirement 3.1 as an exception to R3 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
Response:		
BCTC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
Response:		
NERC PCGC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC BA Certificate. This certificate demonstrates competencies through the NERC certification process." Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.</p>
Response:		
Pacific Gas and Electric Company	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>

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Organization	Yes or No	Question 5 Comment
WECC Operations Training Subcommittee	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read "Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification." Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
Response:		
Consumers Energy Company	No	The role the individual has within the company may not be consistent with the registration of the company. For example, Consumers Energy is registered has a BA, however the role of Controllers may make TO certification more applicable in making them proficient at their job. The activity, not the company registration, should determine the appropriate certification. The extra verbiage under "Areas of Competency" is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.
Response:		
Midwest ISO Stakeholder Standards Collaborators	No	The standard as written requires minimum competency. "At least" needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: "Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate." As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets

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Organization	Yes or No	Question 5 Comment
		these minimum competency levels.
Response:		
Transmission and Reliability (TRO), TVA	No	The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.
Response:		
FirstEnergy	No	We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states "... who have demonstrated minimum competency in the areas listed to obtain and maintain ...". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: "... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ..."
Response:		
Duke Energy	No	We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated

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Organization	Yes or No	Question 5 Comment
		minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording: "Each Balancing Authority shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:"
Response:		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	
Gainesville Regional Utilities	Yes	
PacifiCorp	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

6. Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 6 Comment
E.ON U.S. LLC		
NIPSCO		No comment at this time
NERC PCGC		No opinion
Manitoba Hydro	No	: The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. If the intent to ensure Operating personnel has the proper certification then this is all that should be in this standard and no mention of competency.
Response:		
Xcel Energy	No	A copy of an operator's NERC certificate is not strong evidence of certification and leads organizations to keep track of vitrually worthless pieces of paper or files. Is there something (seal, hologram, mag strip) on the certificate itself that would indicate its authenticity? A more robust method is to verify the individual has an active certitifcate as listed in the NERC database.In general, the measures should not limit the methods for demonstrating compliance to those methods listed. It should indicate that other methods may be acceptable.
Response:		
BCTC	No	Add measures section from PER-003-0 regarding when in transit to backup center.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
Response:		
American Transmission Company	No	ATC agrees with the measure as written but believe that the requirements and purpose statement need to be modified to match. See our comments to Questions 1, 3, 4 and 5
Response:		
Hydro-Québec TransÉnergie (HQT)	No	Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the requirement R1.1 in the existing Version 0 Standard ...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft.A copy of each of the real-time operating personnel’s NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database.The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005).The measures need to clearly state that they only apply to those operators who have primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.
Response:		
Northeast Power Coordinating Council	No	Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard ...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft.A copy of each of the real-time operating personnel’s NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database.The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005)The measures need to clearly state that they only apply to those operators who have primary responsibility.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
ERCOT ISO	No	ERCOT ISO suggests the measures be revised to say “Each Reliability Coordinator, Transmission Operator and Balancing Authority shall show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate. Evidence may include:”
Response:		
Long Island Power Authority	No	LIPA points out that similar to our prior comment the measurement does not speak to the phrase of "demonstrating minimum competencies required to obtain and maintain a valid NERC Certificate", rather only the possession of a valid NERC certificate is indicated. Since NERC Auditors utilize the Standard's requirement and not the Standard's measurement as the benchmark for compliance, LIPA suggests that the measurement be utilized to refine the phrasing of the requirement. Similar to the previous comment, the measurement should be specific to those real time operating positions responsible for the control of the BES. We suggest the following: Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its real-time operating positions responsible for the control of the BES with System Operators that have an appropriate, valid NERC certificate".
Response:		
Duke Energy	No	Measure M1.3 should be revised to only require a list of NERC-certified personnel with their NERC certification numbers and expiration dates. The actual certificates reside with NERC.
Response:		
FirstEnergy	No	Regarding M1.3, the entity may not specifically have copies of every operator's certification. We feel that all that is necessary is to show evidence of valid certificate numbers.
Response:		
Entergy Services	No	The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing “shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:” to “shall have evidence to show that it staffed its real-time operating positions with System

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
		Operators that have an appropriate, valid NERC certificate that may include:".
Response:		
Midwest ISO Stakeholder Standards Collaborators	No	The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing "shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:" to "shall have evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate that may include:".
Response:		
IPCo	No	The measure should be what is required to show compliance.
Response:		
Alberta Electric System Operator	No	The measurements do not address competencies as stated in the requirements. However, this in not an issue if the list of competencies is removed from the standard. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center.
Response:		
Pacific Gas and Electric Company	No	The measurements do not address competencies as stated in the requirements. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center.
Response:		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
WECC Operations Training Subcommittee	No	The measurements do not address competencies as stated in the requirements. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center.
Response:		
ISO RTO Council Standards Review Committee	No	The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard..."Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft. There are no measures for the sub-requirements of areas of competency. These should be removed from the requirement.
Response:		
Platte River Power Authority Operations Group	No	The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not applicable to. It should read:...with Reliability Coordinator, Transmission Operator and Balancing Authority system operators that have an appropriate, valid NERC certificate (R1, R2, R3):
Response:		
Pepco Holdings, Inc - Affiliates	No	The wording in the Measures paragraph should be changed to match the language in the requirements "... staffed its real-time operating positions with System Operators who have demonstrated the appropriate competencies by obtaining the appropriate valid NERC Certificate."
Response:		
Nebraska Public Power District	No	These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
		<p>contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position. In addition, measures 1.1, 1.2 & 1.4 should include the phrase “responsible for the control of the Bulk Electric System” to modify the term real-time operating positions to better align with the purpose. The term “real-time operating positions” is unclear and ambiguous and not defined. There needs to be clarity on which positions fall under this standard.</p>
Response:		
<p>NERC Standards Review Subcommittee</p>	<p>No</p>	<p>These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its Real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.</p>
Response:		
<p>American Electric Power (AEP)</p>	<p>No</p>	<p>While AEP agrees with the measure and sub-measures that are identified in the revised standard, we are concerned with the loss of the content from Measure M1 of the last version. As previously described, AEP believes that the M! language should be maintained, but as a requirement rather than as a measure. Correspondingly, we suggest either the former measure be added as a sub-requirement or notation in requirements R1, R2, and R3, or the former measure be added as an additional requirement in the following format: R4. Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall have NERC-certified operating personnel on shift in required positions at all times with the following exceptions: R4.1 While in training, an individual without the proper NERC certification credential may not independently fill a required operating position. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position. R4.2 During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours.</p>
Response:		
<p>Bonneville Power Administration</p>	<p>Yes</p>	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
Brookfield Renewable Power Inc	Yes	
Consumers Energy Company	Yes	
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
PacifiCorp	Yes	
Public Service Enterprise Group Inc. Companies	Yes	
SERC Standards Review Group	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
City of Tallahassee (TAL)	Yes	<p>However, What are the auditors going to look for me to prove? Are they going to ask me to prove that each certificate issued (or renewed)asked questions from the applicable competencies? This would be above the Measures as written, so how do we get Compliance to acknowledge this? This information will need to come from the Certification Process and that record keeping.</p>
<p>Response:</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
ISO New England Inc.	Yes	The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard..."Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft.
Response:		
South Carolina Electric and Gas	Yes	While we do agree with the Measure for the requirements of this standard, we do NOT agree with removal of the exceptions(M1.1 and M1.2) from the Measure in PER-003-0. These exceptions involve trainees(M1.1) and transferring control from a PCC to a BCC(M1.2).
Response:		

7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 7 Comment
Alberta Electric System Operator		
American Transmission Company		
Consumers Energy Company		
E.ON U.S. LLC		
ISO New England Inc.		
ISO RTO Council Standards Review Committee		
Public Service Enterprise Group Inc. Companies		
NIPSCO		No comment at this time.
NERC PCGC		No opinion
Southern Company Transmission		There is no VRF matrix in this standard.
NERC Standards Review Subcommittee	No	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
ERCOT ISO	No	Failure to have a certified System Operator on a single shift does not necessarily lead directly to cascading outages, blackout, etc. A high Violation Risk Factor (VRF) presumes incorrectly that the System Operator hasn't been trained and that no other System Operators are involved in making decisions. ERCOT ISO recommends a low or medium VRF for each of the requirements.
Response:		
City of Tallahassee (TAL)	No	High VRF is too high. Failure to be certified in and of itself does not pose the threat to the BES. The ACTIONS, and the results of those actions, by the System Operator is the threat. Those threats are covered by other standards VRF's.
Response:		
Gainesville Regional Utilities	No	I disagree with the violation risk factors unless they are applied based on the affect of the Bulk Electric System , not aan individual system. In other wordsa 10,00 Mw system may have a higher vsI due to magnitude alone as compared to a 100 Mw system.
Response:		
Brookfield Renewable Power Inc	No	It does not consider a small transmission system inside a large system. Our system is basically a tap into HQ grid.
Response:		
Transmission and Reliability (TRO), TVA	No	It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. Because it presents an indirect risk, we recommend a low or medium VRF for the requirements.
Response:		
Manitoba Hydro	No	It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don't match the requirements will not hit the target for improving reliability.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
Response:		
BCTC	No	Not defined.
IPCo	No	Risk factors should include levels of non-compliance in current PER-003 in this standard
Response:		
Nebraska Public Power District	No	The Bulk Electric System will not necessarily fail if a non-certified System Operator is operating the system. Conversely there could be a cascading, uncontrolled separation and instability if a certified System Operator was on-shift. If other standards are followed, having certified personnel won't lead to a collapse of the Bulk Power System (we operated for years without certified operators). The Violation Risk Factor should be no higher than Medium.
Response:		
US Bureau of Reclamation	No	The lack of certification may not be the same as competency. Certification is not same as competency based on the current process for achieving certification. If the certification was tied to known failures to follow procedures, an argument could be made that a risk for that operator is higher. Otherwise, there is no imminent threat by the operator who failed to report on hour of training needed to keep certification current.
Response:		
Georgia System Operations Corporation	No	The violation risk factor should be set between low and medium but not high. An improper NERC certificate does not warrant a high risk to the BES if the operator has the correct knowledge but not the correct certificate.
Response:		
Platte River Power Authority Operations Group	No	The Violation Severity Levels are included in the draft of the standard, however, we weren't able to find the Violation Risk Factors.
Response:		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
Midwest ISO Stakeholder Standards Collaborators	No	The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained. Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements.
Xcel Energy	No	The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained. Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements.
Response:		
Entergy Services	No	This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs for R1, R2 & R3 should be shown as LOW.
Response:		
SERC Standards Review Group	No	This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
		for R1, R2 & R3 should be shown as LOW.
Response:		
American Electric Power (AEP)	Yes	
Bonneville Power Administration	Yes	
Duke Energy	Yes	
FirstEnergy	Yes	
Hydro-Québec TransEnergie (HQT)	Yes	
Independent Electricity System Operator	Yes	
Long Island Power Authority	Yes	
Northeast Power Coordinating Council	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
South Carolina Electric and Gas	Yes	
WECC Operations Training Subcommittee	Yes	

8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 8 Comment
Alberta Electric System Operator		
American Transmission Company		
Consumers Energy Company		
ISO New England Inc.		
ISO RTO Council Standards Review Committee		
Public Service Enterprise Group Inc. Companies		
NERC PCGC		No opinion
Gainesville Regional Utilities	No	
NERC Standards Review Subcommittee	No	
American Electric Power (AEP)	No	AEP believes that the functional model and Standard hierarchy, with the Reliability Coordinator being the ultimate authority issuing directives, may suggest different violation severity levels. Although it is definitely understood that each registered applicable entity could have a significant impact in the reliability of the BES, there are inherently differently levels of potential impact related to the specific reliability related job tasks.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
		Therefore, the SDT should reconsider the VSLs based on these differences.
Response:		
Platte River Power Authority Operations Group	No	Although we understand that FERC is most likely not in agreement, it would seem appropriate to have criteria for Lower, Medium and High Severity Levels opposed to an all or nothing approach.
Response:		
Pacific Gas and Electric Company	No	Comments: The VSL should take into consideration various levels of non-compliance, such as those in PER-003-0. PER-003 listed four levels of non-compliance in which the entity did not meet the requirement for a total time between 0-72 hours during a one month period. Certain circumstance may warrant situations in which an entity may not be able to comply with the staffing requirements.
Response:		
ERCOT ISO	No	ERCOT ISO thinks that Violation Severity Levels (VSLs) should be based on the number of System Operators that don't have the proper NERC certification.
Response:		
Hydro-Québec TransEnergie (HQT)	No	Everything is a "Severe." While we agree with the principle of having a NERC certified operator present at all times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual.
Northeast Power Coordinating Council	No	Everything is a "Severe." While we agree with the principle of having a NERC certified operator present at all times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual.
Response:		
SERC Standards Review Group	No	For the reasons stated in question # 7 above, a violation of these requirements should not be considered severe. However, we are aware of the drafting team's constraint to assign only a Severe VSL to standard requirements that are binary in nature.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
Response:		
Entergy Services	No	For the reasons stated in question # 7 above, if a violation is found, the VSL should be shown as LOWER VSL to MEDIUM VSL.
Response:		
Midwest ISO Stakeholder Standards Collaborators	No	In Paragraph 27 of the June 19, 2008 Order on Violation Severity Levels Proposed by the Electric Reliability Organization, the Commission expressed “as a general rule, gradated Violation Severity Levels, wherever possible , would be preferable to binary Violation Severity Levels”. Based on the Commission’s preference, we suggest VSLs could be based on the number of System Operators that don’t have the proper certification. Four levels should be created.
Response:		
Manitoba Hydro	No	It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don’t match the requirements will not hit the target for improving reliability.
Response:		
BCTC	No	RC should have a higher severity level than TO or BA.
Response:		
Transmission and Reliability (TRO), TVA	No	Recommend a gradation of severity levels be developed. A severe VSL for all violations does not appropriately reflect the degree by which an entity has failed to meet the requirement.
Response:		
US Bureau of Reclamation	No	The lack of certification may not be the same as competency. As such the severity level should be consistent with those associated with documentation.
Response:		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
Georgia System Operations Corporation	No	The violation severity levels should be high if the operator does not have a NERC certificate at all. A medium violation severity level should be set if the operator has an improper NERC certificate.
Response:		
WECC Operations Training Subcommittee	No	The VSL should take into consideration various levels of non-compliance, such as those in PER-003-0. PER-003 listed four levels of non-compliance in which the entity did not meet the requirement for a total time between 0-72 hours during a one month period. Certain circumstance may warrant situations in which an entity may not be able to comply with the staffing requirements.
Response:		
Xcel Energy	No	The VSLs appear to be incomplete.
Response:		
E.ON U.S. LLC	No	The VSLs assume all RT operating positions are staffed at all times - this may not always be true. For example, during off-peak periods RT operating positions may be combined and covered by fewer individuals. The standard should not dictate that all potential RT operating positions need to be staffed at all times. The entity will determine adequate staffing levels with the standard requiring that such positions be staffed by certified personnel.
Response:		
Brookfield Renewable Power Inc	No	There is not time to have operators trained first.
Response:		
City of Tallahassee (TAL)	No	There is no caveat for the old "emergency clause" for transitioning to a Back Up Facility. The current Version 0 includes this in Measure M.1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours."
Response:		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
Nebraska Public Power District	No	There should be differing severity levels based on the amount of time a non-certified operator worked unsupervised. Having a non-certified operator work one shift is much less severe than having all non-certified operators. The matrix should reflect the differing severity.
Response:		
IPCo	No	violation factors should include levels of non-compliance in current PER-003 in this standard
Response:		
Bonneville Power Administration	Yes	
Duke Energy	Yes	
FirstEnergy	Yes	
Independent Electricity System Operator	Yes	
Long Island Power Authority	Yes	
NIPSCO	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 9 Comment
Consumers Energy Company		
E.ON U.S. LLC		
ISO New England Inc.		
ISO RTO Council Standards Review Committee		
Midwest ISO Stakeholder Standards Collaborators		
Public Service Enterprise Group Inc. Companies		
Manitoba Hydro		As long as the comments for standard are reviewed and standard resubmitted for review.
Response:		
Platte River Power Authority Operations Group	No	Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and 5 the implementation of this standard should not take effect until PER-005-1 is effective.
Response:		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 9 Comment
Hydro-Québec TransÉnergie (HQT)	No	If all control room operators need to be certified whatever their functions, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC certified. It should be only those that are primarily responsible, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.(i.e. give directives).
Response:		
Northeast Power Coordinating Council	No	If all control room operators need to be certified, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC certified. It should be only those that are primarily responsible (i.e. give directives).
Response:		
Brookfield Renewable Power Inc	No	It is too quick to implement plan.
Response:		
NERC PGC	No	PCGC feels it is unclear as to what the full ramifications this standard may have on the certification process. A full study will be needed if this standard does cause changes to the certification process, and therefore could drastically affect the implementation plan.
Response:		
Long Island Power Authority	No	The implementation Plan allows 6 to 9 months after approval for a Registered Entity to obtain certification for System Operators. LIPA is utilizing this comment to remind NERC to have the facilities to provide certification to those System Operators in a timely manner.
Response:		
Alberta Electric System Operator	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 9 Comment
American Electric Power (AEP)	Yes	
BCTC	Yes	
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
Nebraska Public Power District	Yes	
NERC Standards Review Subcommittee	Yes	
NIPSCO	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 9 Comment
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
SERC Standards Review Group	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	
American Transmission Company	Yes	ATC does agree with the proposed effective date if the evidence to demonstrate compliance is limited to showing that our System Operators have a valid NERC Certificate.
Response:		

10. In In FERC Order 693 the Commission directed the ERO to consider “grandfathering” of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows:

Do you agree with the proposed concept that “grandfathering” not be allowed? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 10 Comment
Public Service Enterprise Group Inc. Companies		
South Carolina Electric and Gas	No	Grandfathering should be allowed under this standard. If an individual has been performing their job for years as a system operator, We don't believe taking a certification exam will make them any more competent than they were prior to the exam. We don't believe there will be any benefits in terms of reliability of the BES or knowledge level. Operators that have been performing a system operator job for years obviously have a "minimum" knowledge level and forcing them to take and pass an exam would provide little or no benefit. We would agree to phasing out the "grandfathering" over a period of years, however we feel that the funds needed for this training and certification can be better utilized elsewhere.
Response:		
Brookfield Renewable Power Inc	No	I believe the standard to which our operators were trained was to the same level as the HQ operation staff.
Response:		
E.ON U.S. LLC	No	If the proposed no “grandfathering” applies only to individuals pursuing initial certification then the approach seems appropriate. However, individuals seeking re-certification via the CEH process should not also be subject to overall/comprehensive certification exams. The re-certification process requires exams to earn

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
		CEH credits. This should suffice
Response:		
NIPSCO	No	We generally agree with sections B & D above. In A. we disagree with the last sentence: "Passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator". PER-005 requires that operators be trained in what they do. Through audits, spot checks and self certification compliance to this will be reviewed by the regions and NERC. In Section C. We disagree with the sentence: "Overall labor relations issues that arose due to the NERC System Operator Certification requirements have, for the most part, already been settled." This is still a major issue that has not yet been resolved. I think it's interesting to note that the word "competency" does not appear in the above items A-D however "knowledge" is used numerous times. Should "knowledge" be used in the standard in place of competency ?
Response:		
Alberta Electric System Operator	Yes	
American Electric Power (AEP)	Yes	
BCTC	Yes	
Bonneville Power Administration	Yes	
Consumers Energy Company	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	

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Organization	Yes or No	Question 10 Comment
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
Long Island Power Authority	Yes	
Manitoba Hydro	Yes	
Midwest ISO Stakeholder Standards Collaborators	Yes	
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
Platte River Power Authority Operations Group	Yes	
SERC Standards Review Group	Yes	
Southern Company Transmission	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	
Gainesville Regional Utilities	Yes	At this juncture I agree since to operate a system the certification that came about was "required" and all System Operators took the tests and received their certification in their respective areas. I beleve at the time some individuals could have been grandfathered in. Not anymore, due to no apparent reason.
Response:		
American Transmission Company	Yes	ATC agrees that grandfathering should not be allowed as a replacement for a valid NERC Certification.
Response:		
City of Tallahassee (TAL)	Yes	However, paragraph B is not entirely correct. When Version 0 standards were adopted, we had three senior operators retire after they were unsuccessful in completing NERC Certification.
Response:		
NERC Standards Review Subcommittee	Yes	The MRO NSRS agrees that grandfathering should not be allowed as a replacement for a valid NERC certification.
Response:		
Hydro-Québec TransEnergie (HQT)	Yes	The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue as it relates to reliability. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
		provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing any FERC Orders.
Response:		
Northeast Power Coordinating Council	Yes	The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing FERC Orders.
Response:		
ISO New England Inc.	Yes	We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.
Response:		
ISO RTO Council Standards Review Committee	Yes	We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach. We would like to comment on the Passing Rates - a better sample of data should have been obtained. This data reflects a 2% failure rate. Considering normal distribution, the data presented reflects either that statistical analysis was inadequate for the sample or the cutoff score for the exam may need to be changed.
Response:		

11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process.

Do you agree with the method the SDT has used to meet the FERC directive? If not, please explain in the comment area.

Summary Consideration:

Organization	Yes or No	Question 11 Comment
Public Service Enterprise Group Inc. Companies		
FirstEnergy	No	Although we agree that the SDT has done everything they can to meet the FERC directive, we do not agree that minimum competencies must be spelled out in the standard since obtaining a NERC Certificate already proves you demonstrate the minimum competencies. Please refer to our comments in Questions 3, 4, and 5.
Response:		
Gainesville Regional Utilities	No	I can't agree as to how specifically addressed competencies should be addressed. If a system operator can perform the necessary functions to keep s specific company reliable, how are these proposed competencies going to be investigated as to what depth of "competency? Who's decision will that be, The Entity, NERC, FERC, IEEE? Clarification may be in order
Response:		
American Electric Power (AEP)	No	In brief, while AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that the competencies be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual.Please reference the comments provided in Question 1 for the basis for this belief.
Response:		

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Organization	Yes or No	Question 11 Comment
Nebraska Public Power District	No	<p>In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and Â§ 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. FERC has not stated that competencies must be a NERC Standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC Certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program adjust competencies as required to meet changing demands without the time needed to go through the standards development process. We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies.</p>
NERC Standards Review Subcommittee	No	<p>In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and Â§ 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified. FERC has not stated that competencies must be a NERC standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program to adjust competencies as required to meet changing demands without the time needed to go through the standards development process. We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies.</p>
Response:		
Brookfield Renewable Power Inc	No	It does not recognize other training
Response:		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
Pepco Holdings, Inc - Affiliates	No	No, if the language change is not adopted. Yes, provided the changes to the language in the requirements and the measures statements is adopted as we proposed.
Response:		
Entergy Services	No	Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator's skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency.
Response:		
SERC Standards Review Group	No	Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator's skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency through experience in operating the system.
Response:		
Independent Electricity System Operator	No	Rather than state FERC's requirement as an obligation of the individual operator to demonstrate minimum competency in each topical area, the requirement should be stated as an obligation of NERC to ensure the certification exams reflect the stated topical areas. See our responses to Q3, Q4 and Q5.
Response:		
Xcel Energy	No	Recommend development of a standard that applies to the ERO on what the certification process must demonstrate and contain. The areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.
Response:		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
NERC PCGC	No	Section 600 of the Rules of Procedure of the North American Electric Reliability Corporation states “the System Operator Certification Program provides the mechanism to ensure system operators are provided the education and training necessary to obtain the essential knowledge and skills and are therefore qualified to operate the bulk electric system. NERC, as the ERO, will ensure skilled, trained, and qualified system operators through the System Operator Certification Program. NERC shall develop and maintain a personnel certification program to evaluate individuals and to issue credentials to individuals who demonstrate the required level of competence.”4. The personnel certification program governing body shall have control over the matters related to the personnel certification and recertification programs listed below, without being subject to approval by any other body.4.1 Policies and procedures, including eligibility requirements and application processing.4.2 Requirements for personnel certification, maintaining certification, and recertification.4.3 Examination content, development, and administration.4.4 Examination cut score.This standard should only ensure that reliability related tasks are being performed by NERC Certified System Operators.
Response:		
Georgia System Operations Corporation	No	The areas of competency are not needed in the standard since they are already in the NERC certification program. The standard should refer to the System Operator Certification program and not list the areas of competency.The NERC System Operator Certification Program states that it “awards certification credentials to those individuals who demonstrate that they have attained sufficient knowledge relating to NERC reliability standards and the basic principles of bulk power system operations by passing one of four specialty examinations.”The System Operator Certification mission is to “ensure that employers have a workforce of system operators that meet minimum qualifications.”
Response:		
IPCo	No	the Competecies should not be part of this standard.
Response:		
Consumers Energy Company	No	The functional entities have no responsibility and no recourse to the design of the certification process. They cannot determine what is demonstrated by an operator passing a certification examination. They cannot be held responsible for anything they cannot control.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
Response:		
Long Island Power Authority	No	The term "minimum competencies" will be difficult to demonstrate compliance to. The term is very open to conflicting interpretation. A possible alternative is reference to the System Operator Certification Program manual. The demonstration and measurement of System Operator competencies is better suited to the Standard PER-005, and is another reason why the requirement should be limited to the possession of a current and valid NERC certificate.
Response:		
Alberta Electric System Operator	No	There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
Response:		
ERCOT ISO	No	There is an established process in place which defines the minimum competencies for NERC Certification. This meets the Commission's directive in FERC Order 693.
Response:		
NIPSCO	No	These specific competencies should be covered in the new PER-005 Standard and not in the certification standard.
Response:		
BCTC	No	This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
Pacific Gas and Electric Company	No	This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
WECC Operations Training	No	This is a violation of the PCGC Charter. There is an established process in place for NERC Certification.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
Subcommittee		This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
Response:		
E.ON U.S. LLC	No	Topical areas required to demonstrate minimum competencies should be (and are) addressed in the NERC certification process - they should not part of a requirement in a Reliability Standard
Response:		
American Transmission Company	No	We believe that the inclusion of the minimum competency list is unnecessary because the NERC System Operator Certificate program already addresses these competencies. The SDT should work with the NERC System Operator Certification group to develop a summary of the NERC Certification program in order to address FERC's concern.
Response:		
Midwest ISO Stakeholder Standards Collaborators	No	While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.
Response:		
Transmission and Reliability (TRO), TVA	No	While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure.
Response:		
Hydro-Québec TransEnergie (HQT)	No	With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
		<p>structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should “drill down” to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved. Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency.</p>
Northeast Power Coordinating Council	No	<p>With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should “drill down” to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved. Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency.</p>
Response:		
Bonneville Power Administration	Yes	
Duke Energy	Yes	
Manitoba Hydro	Yes	
PacifiCorp	Yes	

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Organization	Yes or No	Question 11 Comment
Platte River Power Authority Operations Group	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
US Bureau of Reclamation	Yes	
City of Tallahassee (TAL)	Yes	Although this could have been better addressed through the NERC System Operator Certification Program and that process. The performance standard (PER-003) could have remained the Version 0, and only required that they be certified at the appropriate level.
Response:		
ISO RTO Council Standards Review Committee	Yes	The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (e.g., using differing tools and systems), depending on the organizational structures. It is our understanding that the initial exam requirement is intended to assess conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.
Response:		
ISO New England Inc.	Yes	We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (i.e. using differing tools and systems), depending on the organizational structures. It is our understanding that the initial exam requirement is intended to conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to

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Organization	Yes or No	Question 11 Comment
		taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.
Response:		

12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section.

Summary Consideration:

Organization	Question 12 Comment
Alberta Electric System Operator	
American Transmission Company	
BCTC	
Bonneville Power Administration	
Brookfield Renewable Power Inc	
City of Tallahassee (TAL)	
E.ON U.S. LLC	
ERCOT ISO	
FirstEnergy	
Gainesville Regional Utilities	
Manitoba Hydro	
Midwest ISO Stakeholder Standards Collaborators	

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Organization	Question 12 Comment
Nebraska Public Power District	
Pacific Gas and Electric Company	
Pepco Holdings, Inc - Affiliates	
Public Service Enterprise Group Inc. Companies	
Southern Company Transmission	
US Bureau of Reclamation	
WECC Operations Training Subcommittee	
Xcel Energy	
Entergy Services	A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require System Operator certification and should therefore be removed from the System Operator definition in the Glossary.
SERC Standards Review Group	A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require System Operator certification and should therefore be removed from the System Operator definition in the Glossary.
Response:	
IPCo	conflicts with PCGC charter
Response:	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 12 Comment
Long Island Power Authority	LIPA believes the proposed Standard "shall staff its real-time operating positions with System operators who have demonstrated minimum competency in the areas listed" could infer that Registered Entities be in compliance with PER-005-1 prior to the effective date of PER-005-1, when the intent of PER-003 is to assure that the Registered Entity has staffed its real-time operating positions with System Operators possessing a valid Nerc Certificate.
Response:	
NERC Standards Review Subcommittee	N/A
Georgia System Operations Corporation	N/C
Consumers Energy Company	No
Hydro-Québec TransEnergie (HQT)	No
American Electric Power (AEP)	No known regulatory conflicts.
ISO New England Inc.	No.
Duke Energy	None
ISO RTO Council Standards Review Committee	None
NIPSCO	None
PacifiCorp	None
Northeast Power Coordinating Council	None.

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Organization	Question 12 Comment
Transmission and Reliability (TRO), TVA	None.
South Carolina Electric and Gas	Not aware of any.
Independent Electricity System Operator	We are not aware of any conflicts.
Platte River Power Authority Operations Group	We believe the standard as written ...shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed could infer that registered entities be in compliance with PER-005-1 when in reality the intent of the Standard is to assure registered entities have staffed real-time operating positions with System Operators that have an appropriate, valid NERC certificate.
Response:	
NERC PCGC	Yes. There is a conflict between FERC Order 693 and the ROP, section 600, which were approved post FERC Order 693. See comment for #11
Response:	

13. In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Summary Consideration:

Organization	Question 13 Comment
BCTC	
Bonneville Power Administration	
Brookfield Renewable Power Inc	
City of Tallahassee (TAL)	
E.ON U.S. LLC	
Gainesville Regional Utilities	
Hydro-Québec TransEnergie (HQT)	
Manitoba Hydro	
Midwest ISO Stakeholder Standards Collaborators	
Nebraska Public Power District	
Northeast Power Coordinating Council	
Pepco Holdings, Inc - Affiliates	

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Organization	Question 13 Comment
Platte River Power Authority Operations Group	
Public Service Enterprise Group Inc. Companies	
Southern Company Transmission	
US Bureau of Reclamation	
Georgia System Operations Corporation	A section on training of operators that was in the old standard still should be addressed in the updated standard. If not, an interpretation of this standard would not allow a trainee, working on achieving his NERC certification, to gain operating experience working under the direct supervision of a certified system operator.
Response:	
ERCOT ISO	ERCOT ISO believes that minimum competencies do not belong in this standard. The terms “competent” and “competencies” are not interchangeable. Competent is a measure of a person’s ability to perform. Competencies are, generally speaking, the knowledge and skills a person must have in order to develop or achieve competence. Some competencies (a minimum body of knowledge) can be demonstrated by the current NERC certification process. Other competencies that are not demonstrated by the current NERC certification process are defined and evaluated by the individual Registered Entities. When combined with the knowledge competencies, the Registered Entity then verifies that the individual is competent to perform its assigned tasks. Each ISO or RE should be allowed to establish qualification criteria for operating within its region. Furthermore, there is more flexibility within the existing process by going through the Personnel Certification Governance Committee for changing minimum competencies than there would be to change minimum competencies if they were added into the NERC standards.
Response:	
NERC PCGC	It is suggested that we leave the competencies with PER-005 and leave them out of this standard.
Response:	
Long Island Power Authority	LIPA suggests consideration of a requirement to require each RC/TOP/BA to have at least one position staffed with a

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
	<p>System Operator possessing a valid NERC Certificate, 24 hours a day, seven days a week, responsible for the control of the bES munder R1/R2/R3. This requirement will eliminate the ambiguity of the definition of real-time operating positions responsible for the control of the BES.2.Consideration for a requirement that clearly states the requirement of possessing a valid NERC certificate before a System Operator can fill a real-time operating position responsible for the control of the BES. It is our opinion that the phrase "demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate" can be interpreted as not requiring the possession of a valid NERC Certificate prior to staffing a real-time operating position. For example, minimum competency (which is undefined) can be demonstrated by a test given by the Registered Entity to a System Operator prior to the System Operator completing the NERC Certification process. If the pupose of this Standard is to demonstrate competency via the NERC certification process then the requirements should clearly state so.</p>
Response:	
NERC Standards Review Subcommittee	N/A
Consumers Energy Company	None
PacifiCorp	None
South Carolina Electric and Gas	None
Entergy Services	None not already stated above.
SERC Standards Review Group	None not already stated above.
Transmission and Reliability (TRO), TVA	None.
Independent Electricity System Operator	<p>PER-003-0 (Version 0) M1.1 provided for or stated that it was permissible for an operator-in-training without proper NERC certification to perform reliability related tasks while under direct and continuous supervision. PER-003-1 is now silent in this regard. Does this mean that it is still permissible for O-I-T's or other uncertified operations staff to perform these tasks under direct and continuous supervision and that it was deemed unnecessary to specifically mention this fact? To avoid compliance uncertainty in the future, we recommend reinstating the wording of PER-003-0 M1.1 or</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
	equivalent.
Response:	
NIPSCO	R1.2 from the existing PER-003-0 “Positions directly responsible for complying with NERC standards” was removed; the word “both” in R1 tied this to the real time operations. This is a key change to the standard that I think should be questioned and noted. In determining who should be NERC certified some entities can presently exclude people who are not familiar at all with complying to NERC Standards however they may be operating the BES. Another issue that came up during a proposed interpretation discussion a few years ago was that if a real time operator can act “independently”, like shed load without asking a supervisor, then that person should be certified. This excluded switchmen and local dispatch center personnel who would ask for direction from a certified operator before acting on the BES. I think both these issues should be addressed or at least brought to the attention of people commenting.
Response:	
Duke Energy	The “Reliability Operator” certificate is for Reliability Coordination. The name of the certificate should be made consistent with the task.
Response:	
Xcel Energy	The current version of PER-003 addresses the allowability of non-NERC certified individuals (trainees) performing tasks of an RC, BA, or TOP under direct supervision of a certified individual and we believe there should be a requirement that explicitly allows that to occur. The current version of PER-003 addresses the allowable time that non-NERC certified personnel may staff positions when transitioning to an alternate control center. We believe this should be addressed in the requirements and also be consistent with the allowable transition time specified in EOP-008.
Response:	
IPCo	The PCGC issues the credentials for the Operator Certification, How Does the ERO audit the PCGC for NERC compliance for issuing the certificates?
Response:	
FirstEnergy	The phrase "real-time" used in the standard should be capitalized (Real-time) since it is a NERC Glossary term.

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Organization	Question 13 Comment
Response:	
Pacific Gas and Electric Company	The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard.
WECC Operations Training Subcommittee	The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard.
Response:	
American Electric Power (AEP)	There are potential gaps and conflicting information in the NERC CE Program and System Operator Certification Program Manual with respect the demonstrated competencies and Appendix A for recognized training topics. As explained in Section 600 - Personnel Certification of the Rules of Procedure of the NERC, these gaps and conflicting information will need to be addressed by the PCGC. The PCGC, in coordination with the NERC Personnel Subcommittee, should continue to manage the demonstrated competency areas and measuring thereof going forward. PER-005-1 should be modified to identify the company-specific reliability-related tasks of the identified competency areas to be addressed with a systematic training approach.
Response:	
American Transmission Company	This SDT should look at the new PER-005 standards as an additional source to show that the minimum competency list is being addressed.
Response:	
ISO New England Inc.	We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion. We believe the Standard need to be clarified to make it more clear for the industry.
ISO RTO Council Standards Review Committee	We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
	We believe the Standard needs to be clarified to make it more clear for the industry.
Response:	
Alberta Electric System Operator	We do not feel that competencies belong in this standard. Competencies are addressed in PER005 by requiring training programs to be developed based on the entity's BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability standards, the task list will identify relevant competencies. From PER005 - "Purpose: To ensure that System Operators performing real-time, reliability-related tasks on the North American Bulk Electric System (BES) are competent to perform those reliability-related tasks. The competency of System Operators is critical to the reliability of the North American Bulk Electric System."
Response:	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

The Certifying System Operators Standard Drafting Team thanks all commenters who submitted comments on the draft Operating Personnel Credentials standard. This standard was posted for a 30-day public comment period from October 21, 2009 through November 20, 2009. The stakeholders were asked to provide feedback on the standard through a special Electronic Comment Form. There were 41 sets of comments, including comments from more than 150 different people from over 65 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received the drafting team made the following changes to the proposed Standard:

- Modified the Purpose statement to provide additional clarity.
- Modified the Effective Date from six months to twelve months.
- Modified the body of the Requirements to provide additional clarity on who should be certified and how certification is to be accomplished.
- Added a footnote to clarify that a trainee that is not NERC-certified must work under the direct supervision of a NERC-certified System Operator
- Modified the Measure to provide additional clarity as to who is being measured.
- Modified the VSLs to align with the modifications to the Requirements.

There were several minority issues that the team was unable to resolve, including the following:

- Several stakeholders object to the reference to “competencies.” The team is required to address the FERC directive from Order 693 that states that the standard must identify the minimum competencies operating personnel must demonstrate to be certified. The team met with FERC staff and confirmed that the directive does intend for competencies to be identified in the standard.
- Several stakeholders want the language from PER-003-0 relative to allowing trainees to work without a NERC certificate while under the direct supervision of a NERC certified System Operator to be provided in this standard and the team declined to include this provision. The SDT explained that they believed that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. However, the SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”
- Several stakeholders want the language from PER-003 that allowed a responsible entity to operate the BES with someone other than a NERC certified System Operator during an emergency while transferring from a primary control center to a backup control center and the team declined to include this provision. The SDT explained that it believed that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if

a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only impose a penalty if the situation truly warranted such an action.

- Several stakeholders asked for additional language to clarify the role of continuing education hours (CEHs) in maintaining a valid NERC certificate and the team declined to add a reference to CEHs in the standard. The SDT explained that they believed that a System Operator should maintain his or her certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.
- Several stakeholders want the VSLs to be gradated and the team did not change the VSLs. The VSLs proposed meet both NERC and FERC VSL Guidelines.

In this “Consideration of Comments” document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshueni@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

1. The Purpose statement of the draft standard reads “To ensure that System Operators performing the reliability-related tasks’ of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System”. 12

2. In The effective date of the draft standard reads “In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption”..... 25

3. Requirement R1 of the draft standard reads: 30

4. Requirement R2 of the draft standard reads: 49

5. Requirement R3 of the draft standard reads: 70

6. Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area..... 89

7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area. 100

8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area. 108

9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area..... 116

10. In In FERC Order 693 the Commission directed the ERO to consider “grandfathering” of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows: 120

11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process..... 126

12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section..... 140

13. In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1..... 143

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

		Commenter	Organization	Industry Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Margaret Stambach	SERC Standards Review Group	X	X	X		X	X			X	X
Additional Member		Additional Organization		Region		Segment Selection							
1.	Steve Fritz	ACES Power Marketing		SERC		6							
2.	John Neagle	AECI		SERC		1, 3, 5							
3.	Greg Yakle	City of Springfield IL-CWLP		SERC		1, 3, 5, 9							
4.	David Jenkins	Dominion VP		SERC		3, 1							
5.	Jack Kerr	Dominion VP		SERC		1, 3							
6.	Devan Hoke	Duke Energy		SERC		1, 3, 5							
7.	Steve Jones	Duke Energy		SERC		1, 3, 5							
8.	Andy Burch	EEI		SERC		1, 5							
9.	Rick Myers	EEI		SERC		1, 5							
10.	Jim Case	Entergy Transmission		SERC		1, 3							
11.	Robert Wayne Mitchell	Entergy Transmission		SERC		1, 3							
12.	Brad Young	EON-US		SERC		1, 3, 5							
13.	Brian Haggard	GSOC		SERC		3							
14.	Paul Hodges	GSOC		SERC		3							

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
15.	Timmy Lejeune	LAGen/NRG Energy	SERC							1, 3, 5				
16.	Dwayne Robert	OMU	SERC							1, 3, 5				
17.	Ray Gross	PJM	SERC							2				
18.	Bill Thigpen	PowerSouth	SERC							1, 3, 5, 9				
19.	Kevin Kelly	Progress Energy	SERC							1, 3, 5				
20.	Rene Free	Santee Cooper	SERC							1, 3, 5, 9				
21.	Glenn Stephens	Santee Cooper	SERC							1, 3, 5, 9				
22.	Gene Delk	SCE&G	SERC							1, 3, 5				
23.	Steve Hebert	SCE&G	SERC							1, 3, 5				
24.	John Troha	SERC Reliability Corp.	SERC							10				
25.	Gwen Frazier	Southern Company	SERC							1, 3, 5				
26.	Robert (Rocky) Williamson	Southern Company	SERC							1,3,5				
27.	Alvis Lanton	Southern Illinois Power	SERC							1,3,5				
28.	John Rembold	Southern Illinois Power	SERC							1,3,5				
29.	Doug Bailey	TVA	SERC							1,3,5,9				
30.	Mike Fielden	TVA	SERC							1,3,5,9				
31.	Edd Forsythe	TVA	SERC							1,3,5,9				
32.	John Kell	TVA	SERC							1,3,5,9				
33.	Sue Mangum	TVA	SERC							1,3,5,9				
34.	Annette Moore	TVA	SERC							1,3,5,9				
35.	David Troy	TVA	SERC							1,3,5,9				
2.	Group	Carol Gerou	NERC Standards Review Subcommittee											X
Additional Member		Additional Organization		Region			Segment Selection							
1.	Chuck Lawrence	American Transmission Company	MRO							1				
2.	Tom Webb	WPS Corporation	MRO							4, 5, 6				
3.	Terry Bilke	Midwest ISO Inc.	MRO							2				
4.	Jodi Jenson	Western Area Power Administration	MRO							1, 6				
5.	Ken Goldsmith	Alliant Energy	MRO							4				

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
6.	Dave Rudolph	Basin Electric Power Cooperative	MRO							1, 3, 5, 6				
7.	Eric Ruskamp	Lincoln Electric System	MRO							1, 3, 5, 6				
8.	Joseph Knight	Great River Energy	MRO							1, 3, 5, 6				
9.	Joe DePoorter	Madison Gas & Electric	MRO							3, 4, 5, 6				
10.	Scott Nickels	Rochester Public Utilities	MRO							4				
11.	Terry Harbour	MidAmerican Energy Company	MRO							1, 3, 5, 6				
3.	Group	Guy Zito	Northeast Power Coordinating Council											X
Additional Member		Additional Organization		Region			Segment Selection							
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC							10				
2.	Gregory Campoli	New York Independent System Operator	NPCC							2				
3.	Roger Champagne	Hydro-Quebec TransEnergie	NPCC							2				
4.	Kurtis Chong	Independent Electricity System Operator	NPCC							2				
5.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC							1				
6.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC							1				
7.	Brian D. Evans-Mongeon	Utility Services	NPCC							8				
8.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC							3				
9.	Brian L. Gooder	Ontario Power Generation Incorporated	NPCC							5				
10.	Kathleen Goodman	ISO - New England	NPCC							2				
11.	David Kiguel	Hydro One Networks Inc.	NPCC							1				
12.	Michael R. Lombardi	Notheast Utilities	NPCC							1				
13.	Randy MacDonald	New Brunswick System Operator	NPCC							2				
14.	Greg Mason	Dynegy Generation	NPCC							5				
15.	Bruce Metruck	New York Power Authority	NPCC							6				
16.	Chris Orzel	FPL Energy/NextEra Energy	NPCC							5				
17.	Robert Pellegrini	The United Illuminating Company	NPCC							1				
18.	Saurabh Saksena	National Grid	NPCC							1				
19.	Michael Schiavone	National Grid	NPCC							1				
20.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC							10				

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
21.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC						10				
4.	Group	Deb Schaneman	Platte River Power Authority Operations Group	X		X		X					
Additional Member		Additional Organization		Region			Segment Selection						
1.	Terry Baker	Platte River Power Authority		WECC			1, 3, 5						
2.	John Powell	Platte River Power Authority		WECC			1, 3, 5						
3.	Jeff Landis	Platte River Power Authority		WECC			1, 3, 5						
5.	Group	Denise Koehn	Bonneville Power Administration	X		X		X	X				
Additional Member		Additional Organization		Region			Segment Selection						
1.	Bernie O'Connell	Transmission Dispatch		WECC			1						
2.	Ted Snodgrass	Transmission Dispatch		WECC			1						
3.	Tim Loepker	Transmission Dispatch		WECC			1						
6.	Group	Lauri Jones	WECC Operations Training Subcommittee										
Additional Member		Additional Organization		Region			Segment Selection						
1.	Robert Eubank	WECC		WECC			10						
2.	Steve Owen	PSC		WECC									
3.	Brian Reich	IPCO		WECC									
4.	Richard Krajewski	PNM		WECC									
5.	Keith Carmen	TSGT		WECC									
6.	Hank LuBean	DOPD		WECC									
7.	Kristie Coco	SRP		WECC									
8.	Rich Brock	PSC		WECC									
9.	Warren Maxvill	AVA		WECC									
10.	Bruce Fauvelle	AESO		WECC									
11.	Pete Gibson	WECC-RC		WECC									
12.	Brett Hallborg	BCTC		WECC									
13.	Stephanie Conn	WAPA		WECC									

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
14.	Bill Simmons	SMUD	WECC											
15.	Robert Staten	PSC	WECC											
16.	Robert Williams	Pacific Corp	WECC											
7.	Group	Kenneth D. Brown	Public Service Enterprise Group Inc. Companies	X		X								
Additional Member		Additional Organization		Region			Segment Selection							
1.	Ron Wharton	PSE&G	RFC				1, 3							
2.	Jim Hebson	ER&T	RFC				6							
3.	Tom Piascik	PSEG Fossil	RFC				5							
8.	Group	Sam Ciccone	FirstEnergy	X		X	X	X	X					
Additional Member		Additional Organization		Region			Segment Selection							
1.	Jim Eckels	FirstEnergy	RFC											
2.	John Wilson	FirstEnergy	RFC											
3.	John Martinez	FirstEnergy	RFC											
4.	Steve Megay	FirstEnergy	RFC											
5.	Andy Hunter	FirstEnergy	RFC											
6.	Dave Folk	FirstEnergy	RFC											
9.	Group	Jason L. Marshall	Midwest ISO Stakeholder Standards Collaborators		X									
Additional Member		Additional Organization		Region			Segment Selection							
1.	Michael J Ayotte	ITC Holdings	RFC				1							
2.	Barb Kedrowski	We Energies	RFC				3, 4, 5							
3.	Joe Knight	Great River Energy	MRO				1, 3, 5							
4.	Alisha Anker	Prairie Power, Inc.	SERC				3, 4							
5.	Jim Cyrulewski	JDRJC Associates, LLC	RFC				8							
10.	Group	Ben Li	ISO RTO Council Standards Review		X									

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
		Committee												
Additional Member		Additional Organization		Region				Segment Selection						
1.	Mark Thompson	AESO	WECC					2						
2.	Lourdes Estrada-Saliner	CAISO	WECC					2						
3.	Steve Myers	ERCOT	ERCOT					2						
4.	Matt Goldberg	ISONE	NPCC					2						
5.	Bill Phillips	MISO	MRO					2						
6.	Jim Castle	NYISO	NPCC					2						
7.	Patrick Brown	PJM	RFC					2						
8.	Charles Yeung	SPP	SPP					2						
11.	Group	JT Wood	Southern Company Transmission	X		X								
Additional Member		Additional Organization		Region				Segment Selection						
1.	Hugh Frances		SERC					1						
12.	Group	Richard J. Kafka	Pepco Holdings, Inc - Affiliates	X										
Additional Member		Additional Organization		Region				Segment Selection						
1.	David Thorne	Potomac Electric Power Company	RFC					1						
2.	Valerie Hildebrand	Potomac Electric Power Company	RFC					1						
3.	Vic Davis	Delmarva Power & Light	RFC					1						
4.	John Keller	Atlantic City Electric	RFC					1						
13.	Individual	Ted Bialy	Brookfield Renewable Power Inc	X				X						
14.	Individual	Sandra Shaffer	PacifiCorp	X		X		X	X					
15.	Individual	Kelly Blackmer	NERC PCGC											X
16.	Individual	Brent Ingebrigtsen	E.ON U.S. LLC	X		X		X	X					
17.	Individual	Mark L Bennett	Gainesville Regional Utilities	X		X		X					X	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
18.	Individual	Joylyn Stover	Consumers Energy Company			X	X	X						
19.	Individual	Mark Thompson	Alberta Electric System Operator		X									
20.	Individual	Kasia Mihalchuk	Manitoba Hydro	X		X		X	X					
21.	Individual	Alice Murdock	Xcel Energy	X		X		X	X					
22.	Individual	Lauri Jones	Pacific Gas and Electric Company	X		X		X						
23.	Individual	Brian Reich	IPCo			X	X							
24.	Individual	Gordon Rawlings	BCTC	X	X									
25.	Individual	Joe O'Brien	NIPSCO	X		X		X	X					
26.	Individual	Alan Gale	City of Tallahassee (TAL)			X		X						
27.	Individual	Kathleen Goodman	ISO New England Inc.		X									
28.	Individual	Jonathan Appelbaum	Long Island Power Authority	X										
29.	Individual	Ron Gunderson	Nebraska Public Power District	X		X		X						
30.	Individual	Edward Davis	Entergy Services	X		X		X	X					
31.	Individual	James H. Sorrels, Jr.	American Electric Power (AEP)	X		X		X	X					
32.	Individual	Dan Rochester	Independent Electricity System Operator		X									
33.	Individual	James Starling	South Carolina Electric and Gas	X		X		X	X					
34.	Individual	Laura Zotter	ERCOT ISO		X									

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
35.	Individual	Greg Rowland	Duke Energy	X		X		X	X					
36.	Individual	Scott Barfield-McGinnis	Georgia System Operations Corporation			X	X							
37.	Individual	Annette L. Moore	Transmission and Reliability (TRO), TVA										X	
38.	Individual	Roger Champagne	Hydro-Québec TransEnergie (HQT)	X										
39.	Individual	Jason Shaver	American Transmission Company	X										
40.	Individual	Martin Bauer	US Bureau of Reclamation					X						

- 1. The Purpose statement of the draft standard reads “To ensure that System Operators performing the reliability-related tasks’ of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated competency through the Certification Process when filling a real-time operating position responsible for the control of the Bulk Electric System”.**

Do you agree with the Purpose as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt that the measures did not match the purpose. The SDT explained that it is not required to tie the measures to the purpose of the standard. The SDT further stated that the measures define how to demonstrate compliance with the Requirement and that the measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.

Several other commenters did not believe that the minimum competency needed to be a System Operator should be a part of the standard as the NERC certification program cannot guarantee System Operator competence. The drafting team agrees. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies.” There is a FERC Directive from Order 693 to include the necessary minimum competency within the standard, and the threshold for passing the System Operator certification exams is aimed at those “minimum competencies.” A quick look at the latest exam for the Reliability Coordinator’s System Operators shows that in the Emergency Preparedness and Operations section of the exam, there are 35 questions, 7 for recall, 21 for application, and 7 for analysis.

Some commenters stated that the Purpose was not clear. The SDT explained that it modified the Purpose and added the term “NERC System Operator Certification Program”

A few commenters did not like the use of the term “System Operators” because its definition contained Generator Operators. The SDT explained that it used the term: “System Operator” because it was a defined term which helped to narrow who should be included in this standard. The SDT also explained that it further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority to provide additional clarity.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Manitoba Hydro	No	: The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program process” and removed the term “competency” from the Purpose statement.</p>		
American Transmission Company	No	<p>ATC is concerned that the proposed “Purpose” statement does not align with the requirements and measures as proposed. ATC believes that this standard should focus on requiring System Operators (Associated with RC, TOP and BA) to be NERC certified and should not directly address the competency issue. We are making this statement because we believe that the minimum competency issue is adequately covered in the NERC System Operator Certification program and therefore its inclusion in this standard is both duplicative and confusing. Does the SDT have any members from the NERC System Operation Certificate program or has the team reached out to that group while writing this standard? NERC’s System Operation Certificate program includes a test which is developed by industry experts and overseen by NERC with a focus on specific competencies based on NERC Reliability Standards. Since those competencies are already documented and covered in the Certificate program it is duplicative to include them within this standard. Suggested Modification: (Purpose Statement) “To ensure System Operators are NERC Certified.” We suggest deleting the phrase “performing the reliability-related tasks of the RC, BA and TOP” because the definition of System Operator is descriptive enough to cover this issue. In addition, the Applicability section already identifies which entities have to comply so we did not find it necessary to repeat them in the Purpose statement. Could the SDT identify the deficiencies with the definition of System Operator which cases them to include the additional descriptive language?</p>
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The SDT does include two members from the PCGC.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
<p>The SDT does not believe that using the term “System Operator” is descriptive enough. The term “System Operator” contains Generator Operators, who are not covered by this standard, within its definition.</p> <p>Also, the minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Long Island Power Authority	No	Certification process is in capitals even though it is not a defined term in the NERC Glossary. The term should either be defined or changed to lower case.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” to clarify how the entity is to obtain certification.</p>		
IPCo	No	demonstration of competencies should not be part of of this standard.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
ERCOT ISO	No	ERCOT ISO recommends the following change in wording:”To ensure that System Operators performing the functions of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain the associated valid NERC certificate.”
<p>Response: The SDT is trying to specifically define who is to be certified. The SDT believes that your suggested wording could be strictly interpreted to include personnel that do not necessarily need to be certified operators.</p>		
Consumers Energy Company	No	In order for this to make sense, I would replace the word “when” with “prior to.”
<p>Response: The SDT intentionally used the term “when” to ensure that anytime a person is in that position they need to be certified. The SDT believes that using the term “prior to” could be interpreted that an operator needs certification prior to filling a certain position but does not provide for maintenance of a certificate.</p>		
NIPSCO	No	Passing a NERC Operating Certification exam does not ensure competency in all listed areas since one could perform poorly in one area of the exam and still obtain a credential. At the very least the word “competency” should be replaced by “minimum competency” here.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		
Tranmission and Reliability	No	Recommend the statement be demonstrated minimum competency through the certification process.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
(TRO), TVA		Certification is a minimum competency and does not fully demonstrate an operator’s ability and competency pertaining to real-time operations of the BES.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		
ISO RTO Council Standards Review Committee	No	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We are concerned that the stated purpose to demonstrate “competency through the Certification Process” is not fulfilled by the proposed requirements. Demonstration of competency cannot be based solely on the NERC Operator Certification Process. The successful completion of 200 continuing education hours over a three year period does not measure two other important factors tied to competency; possessing adequate skills, and exhibiting appropriate behaviors. Demonstration of competency is mandated through PER-005-1. To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest “for the control of the Bulk...” be changed to “for the real-time operation of the Bulk...” AESO has also submitted its individual comments that are not a part of these joint comments. Please note their additional comments to PER-003-1.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The term “control” is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.</p>		
Platte River Power Authority Operations Group	No	<p>The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not applicable to. It should read: To ensure that Reliability Coordinator, Transmission Operator and Balancing Authority system operators...Certification Process is capitalized indicating it is a defined term in the NERC Glossary of Terms which it is not. The standard drafting team (SDT) should either define the term or change it to say ...through the NERC system operator certification program.</p>
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p> <p>The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Midwest ISO Stakeholder Standards Collaborators	No	The purpose of this standard as written is OK but could be made simpler. A more simple and clearer purpose is: "To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified".
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p>		
Alberta Electric System Operator	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
BCTC	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
WECC Operations Training Subcommittee	No	The purpose statement should be modified to ensure desks performing reliability related tasks are staffed with System Operators who hold a valid NERC Certification credential. It should not discuss anywhere in the standard anything regarding minimum competencies as this is determined by NERC PCGC.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
US Bureau of Reclamation	No	The requirement is to obtain the certification. The purpose is to have demonstrated minimum competency in the specific areas defined in the standard.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Xcel Energy	No	The standard relates to operating personnel credentials. "Competencies" are addressed in the training standard as well as whatever the governing document is for the operator certification minimum criteria, not this standard. Suggested purpose: To ensure that System Operators performing the BES reliability related real time operating tasks of a Reliability Operator, Balancing Authority, or Transmission Operator possess the required level of NERC Certification.
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Georgia System Operations Corporation	No	The term real-time operating position needs to be defined. The term system operators in the NERC glossary refer to generation operators and this standard does not. Should the glossary be changed to remove generator operators?
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p> <p>The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p>		
Independent Electricity System Operator	No	The use of the terms “demonstrated competency” in this context is perhaps misleading and inappropriate. It is generally accepted in the industry that a person who is deemed to be competent, or has obtained competency or is able to demonstrate competency in performing a job consisting of a number of tasks

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
		<p>encompasses a combination of knowledge, skills and behavior. It is possible for any person to write and pass a NERC certification exam without ever having performed a reliability related task. The purpose of this standard is to ensure that operators performing reliability related tasks are appropriately certified. Competency in performing reliability related tasks is ensured through operator training which is addressed in Standard PER-005-01. The SDT commentary in Question #10 of this comment form seems to acknowledge the fact that obtaining NERC Certification only ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations and that passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator. Suggested alternative wording for the "Purpose" statement: "To ensure that System Operators performing the reliability-related tasks' of the Reliability Coordinator, Balancing Authority or Transmission Operator have obtained and maintain certification through the NERC Certification Process".</p>
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>Hydro-Québec TransEnergie (HQT)</p>	<p>No</p>	<p>There is concern over the use of "control of the Bulk Electric System". Revision of the standard used "real-time operation of the Bulk Electric System". What is the definition of "control of the Bulk Electric System"? Clarify "control". "Control" implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define "control" for the RC's region. To be more complete and accurate, suggest "for the control of the Bulk..." be changed to "for the real-time operation of the Bulk..." Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. It is our opinion that they don't need to be certified. What is the opinion of the SDT?</p>
<p>Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p> <p>The term "control" is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.</p> <p>Reliability related tasks are defined by each individual entity as covered in PER-005 which has been adopted by the NERC BOT and filed with FERC for approval.</p> <p>The SDT believes that operations support personnel are not making real-time operating decisions and therefore do not need to be covered in this standard.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Northeast Power Coordinating Council	No	<p>There is concern over the use of “control of the Bulk Electric System”. Revision of the standard used “real-time operation of the Bulk Electric System”. What is the definition of “control of the Bulk Electric System”? Clarify “control”. “Control” implies overall authority, and that could be misinterpreted as to what entity has overall authority, the RC or TO. It might be necessary for the RC to define “control” for the RC’s region. To be more complete and accurate, suggest “for the control of the Bulk...” be changed to “for the real-time operation of the Bulk...” Reliability-related tasks should be defined. More specificity is needed to answer the question as to whether or not real-time operations support engineers (planning, etc.) need to be certified. The wording in the purpose of PER-003-1 does not align with the requirements or the measures outlined in PER-003-1. The purpose of PER-003-1 discusses performing reliability related tasks and demonstrating competency. The purpose of PER-003-1 is more like the PER-005 requirement to verify each operator’s ability to perform reliability related tasks. The purpose of PER-003-1 should be straightforward: ensure each RC, BA, and TOP staffs their real-time operating positions responsible for control of the BES with NERC Certified System Operators. “And maintain competency and proficiency by participating in a training program that meets the requirements the System Personnel Training Reliability Standards” could be added.</p>
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The term “control” is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been filed with NERC.</p> <p>Reliability related tasks are defined by each individual entity as covered in PER-005 which has been adopted by the NERC BOT and filed with FERC for approval.</p> <p>The SDT believes that operations support personnel are not making real-time operating decisions and therefore do not need to be covered in this standard.</p> <p>If the proposed addition were made, this standard would be redundant with PER-005. In addition, a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
ISO New England Inc.	No	<p>To be more complete and accurate, and possibly avoid future Requests for Interpretation, we suggest “for the control of the Bulk...” be changed to “for the real-time operation of the Bulk...”</p>
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The term “control” is used in the present standard and the SDT does not know of any request for interpretation of the existing standard having been</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
filed with NERC.		
Duke Energy	No	We believe the Purpose statement should be reworded to reflect that System Operators demonstrate a minimum level of competency by obtaining and maintaining NERC certification. Suggested rewording: "To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated minimum competency by obtaining and maintaining a valid NERC Certificate when filling a real-time operating position responsible for control of the Bulk Electric System."
Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.		
Entergy Services	No	We do not feel that a System Operator has "demonstrated competency" simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10 that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations. In the purpose statement above, the phrase "have demonstrated competency" should be changed to: "have achieved a minimum level of knowledge". In addition, our group would like clarification on some of the terms used in the purpose statement: "real-time operating position". The Glossary of Terms Used in Reliability Standards defines "real time" as "present time as opposed to future time", but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a "real-time operating position"? If so, then the trainee would require certification before being trained in real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. "System Operator". System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers." "Certification Process". This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing "Certification Process" with "system operator certification program", a more recognizable term.
Response: The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement. The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.		

Organization	Yes or No	Question 1 Comment
<p>The SDT believes that the individual responsible for the operation of the BES must be certified. However, the SDT has added a footnote to the standard discussing trainees. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p>		
SERC Standards Review Group	No	<p>We do not feel that a System Operator has “demonstrated competency” simply by passing the examination to become certified. Indeed, the Standard Drafting Team states under question 10A. that “Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations.” In the purpose statement above, the phrase “have demonstrated competency” should be changed to: “have achieved a minimum level of knowledge”. In addition, our group would like clarification on some of the terms used in the purpose statement: “real-time operating position”. The Glossary of Terms Used in Reliability Standards defines “real time” as “present time as opposed to future time”, but real-time operating position is not defined. Does an uncertified trainee sitting at the desk under the direct supervision of a certified operator fill a “real-time operating position”? If so, then the trainee would require certification before being trained in performing real-time, reliability-related tasks. When exactly does an operator need to be certified? Before ever sitting on the desk? The answer is not clear from the purpose statement as written. “System Operator”. System Operator, as defined in the Glossary of Terms Used in Reliability Standards, includes individuals who work in the Generator Operator control centers. Yet the draft standard Applicability (section A. 4) does not include the Generator Operator as a responsible entity. Since those persons who perform Generator Operator tasks are not required to be certified at this time, the term System Operator should be revised in the Glossary of Terms to exclude individuals who staff the Generator Operator control centers.” “Certification Process”. This term is not defined in the Glossary of Terms and should not be capitalized. Furthermore, the term is confusing as to the exact process to which the draft standard refers. We suggest replacing “Certification Process” with “system operator certification program”, a more recognizable term.</p>
<p>Response: The SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency” from the Purpose statement.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the individual responsible for the operation of the BES must be certified. However, the SDT has added a footnote to the standard discussing trainees. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
<p>position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p>		
<p>American Electric Power (AEP)</p>	<p>No</p>	<p>While AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that this best be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual. PER-003-0 is correctly focused only on exactly who needs to be certified and what certification is necessary. The specific competencies are best elaborated in the referenced manual and articulated in PER-002 and -005. However, there are a few changes to PER-003-0 that we do recommend, which will be covered in the questions that follow. The high level identification of competencies, consistent with FERC Order 693, does not address the unintended competency training area disconnect involving credential maintenance in the System Operator Certification Program Manual. There is presently no mechanism in the certification credential maintenance process to ensure a specific type of operator is getting the necessary minimum training in the competency areas identified for his/her credential. As long as an operator acquires enough Continuing Education (CE) hours on recognized training topics in Appendix A of the System Operator Certification Program Manual, along with the minimum simulation and standards requirement, he/she can successfully renew a specific credential. For example, there is presently no mechanism or measure to stop a Reliability Coordinator operator from taking all continuing education training in the area of Interchange Scheduling and Coordination, which is more pertinent to a Balancing & Interchange operator. Even if the initial RC exam content outline covers the required competency areas stated, the CE maintenance/renewal process allows a gap to neglect training in the required areas. Therefore, the Program Manual and other PER training Standards will need to address this gap in the future to ensure compliance with FERC order 693. By passing the initial NERC certification test, an operator merely demonstrates minimum knowledge in the specific credential area, as supported by the exam content outline and related questions. The identified competencies and measure of demonstration relevant to the specific credential areas should be addressed in the System Operator Certification Program Manual, and standards PER-002 and PER-005-1. PER-003-1 should simply require an operator, who is performing the real-time reliability related tasks related to the registered entity’s applicability, to hold the appropriate valid certification credential.</p>
<p>Response: The SDT is responding to a directive from FERC Order 693 to include the minimum competencies within this standard. In addition, the issue of “minimum competencies” was included in the industry approved SAR.</p> <p>Maintenance of a NERC certificate using CEH is outside the scope of the industry approved SAR. In addition, a System Operator can maintain his or her certification either by participating in a training program (accumulating CEHs) or the System Operator can simply re-take the Certification Exam.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
The SDT did not want to mandate a certain method.		
FirstEnergy	Yes	Although we agree with the Purpose statement as proposed, we ask the SDT to consider changing the phrase "Certification Process" to the official name of the program as shown on NERC's website: "System Operator Certification Program".
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p>		
NERC Standards Review Subcommittee	Yes	This "purpose" statement is clear, direct and should be the basis of this proposed NERC Standard. It simply states that a RC, BA and TOP shall ensure that all Real-time System Operator positions have a valid NERC certificate.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT has modified the purpose statement to include the term "NERC System Operator Certification Program" and removed the term "competency" from the Purpose statement.</p>		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	
City of Tallahassee (TAL)	Yes	
Gainesville Regional Utilities	Yes	
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 1 Comment
Public Service Enterprise Group Inc. Companies	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

2. In The effective date of the draft standard reads “In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter six months after Board of Trustees adoption”.

Do you agree with the effective date as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters did not feel that six months was enough time to implement the standard. The SDT stated that although the industry did not support the belief that six months was an inadequate amount of time to implement the standard, the SDT modified the effective date to twelve months in the event that some currently certified personnel may not hold the proper NERC certificate as defined by this standard.

A couple commenters questioned the need for two different implementation time periods. The SDT explained that the language used in the effective date is used in every standard and that it had been approved for use by the Standards Committee. The SDT further explained that different dates were necessary due to the fact that there are multiple jurisdictions, those governed by FERC (United States entities) and those not governed by FERC (Canadian entities).

Organization	Yes or No	Question 2 Comment
Hydro-Québec TransEnergie (HQT)	No	As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System.
<p>Response: The language used in the effective date is used in every standard and has been approved by the Standards Committee. The issue of different dates is necessary due to the fact that there are more than one jurisdiction Those being governed by FERC (United States entities) and the other not governed by FERC (Canadian entities). Since the standard does not include any real-time tasks, an implementation plan that is different in different jurisdictions should have no impact on real-time operations.</p>		
Northeast Power Coordinating Council	No	As written, the proposed standard would become effective at different times in different jurisdictions. In performing their tasks, RCs, TOPs, and BAs need to communicate with their counterparts in neighboring jurisdictions. The level of competency (or lack of it) of staff with real-time operating responsibilities could adversely affect the reliability of the Bulk Electric System.
<p>Response: The language used in the effective date is used in every standard and has been approved by the Standards Committee. The issue of</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 2 Comment
<p>different dates is necessary due to the fact that there are more than one jurisdiction Those being governed by FERC (United States entities) and the other not governed by FERC (Canadian entities). Since the standard does not include any real-time tasks, an implementation plan that is different in different jurisdictions should have no impact on real-time operations.</p>		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and 5 the implementation of this standard should not take effect until PER-005-1 is effective.</p>
<p>Response: PER-003 is defining who should be certified and what certification is necessary – it addresses minimum competencies applicable on a continent-wide basis. PER-005 is meant to define the training aspects for operating personnel and addresses full competence for all reliability-related tasks assigned to the position.</p>		
ISO RTO Council Standards Review Committee	No	<p>If compliance does not require extensive training and/or documentation changes from existing available training, then six months is appropriate. However, we reserve our right to change the response to this question dependent upon the final version of the proposed requirements.</p>
<p>Response: The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
Brookfield Renewable Power Inc	No	<p>Uncertain if my Operators need certification. If they do the timelines are too short to meet the standard.</p>
<p>Response: The applicability of this standard is tied to the organization compliance registry and any associated delegation agreements. For more information please refer to Section 500 of the Rules and Procedures. Entities that identify a need to become compliant can begin preparing their System Operators now, there is no need to wait for the standard to be approved.</p>		
American Electric Power (AEP)		<p>If any existing certifications are significantly modified or if additional certifications are added in the future, preparation time well beyond six months will be necessary for registered entities to become fully compliant.</p>
<p>Response: The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
American Transmission Company	Yes	<p>ATC does agree with the proposed effective date if the evidence to demonstrate compliance is limited to showing that our System Operators have a valid NERC Certificate.</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 2 Comment
<p>The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
Alberta Electric System Operator	Yes	Please see the RTO/ISO SRC comments.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment. The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it.</p>		
Midwest ISO Stakeholder Standards Collaborators	Yes	These changes do not represent a significant change from what industry currently practices so a long implementation is not necessary.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment. The applicability has not been expanded; however, the SDT revised the implementation plan because some currently certified personnel may not hold the certificate required by the new standard and more time may be needed to obtain it</p>		
NERC Standards Review Subcommittee	Yes	N/A
BCTC	Yes	
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Consumers Energy Company	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 2 Comment
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
ISO New England Inc.	Yes	
Long Island Power Authority	Yes	
Manitoba Hydro	Yes	
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
NIPSCO	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
Public Service Enterprise Group Inc. Companies	Yes	
SERC Standards Review Group	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 2 Comment
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	

3. Requirement R1 of the draft standard reads:

R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate.

1.1 Areas of Competency

1.1.1 Resources and Demand Balancing

1.1.2 Transmission Operations

1.1.3 Emergency Preparedness and Operations

1.1.4 System Operations

1.1.5 Protection and Control

1.1.6 Voltage and Reactive

1.1.7 Interchange Scheduling and Coordination

1.1.8 Interconnection and Reliability Operations and Coordination

Do you agree with Requirement R1 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the “Areas of Competency” came from and suggested that they should not be included within the standard. The SDT explained that the “Areas of competency” were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The SDT also explained that the expectation was that the registered entity would use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

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A few commenters felt there should be an exception within the standard for trainees. The SDT explained that, for reliability-related reasons, the entity responsible for the operation of the BES has to be certified. However, the SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”

A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if an entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

Organization	Yes or No	Question 3 Comment
Public Service Enterprise Group Inc. Companies	No	1.1.4 System Operations. This term needs to be specifically defined, either in this Standard or the NERC Glossary. Absent a clear definition, this term introduces a vagueness into the proposed standard that will make both compliance and enforcement problematic. The definition should be vetted in an open process so that industry comment can be obtained.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
IPCo	No	Area of competencies are not part of the certification.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program and serve as the basis for the certification exams. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Independent Electricity System Operator	No	As stated in question #1, the use of the terms “demonstrated competency” is not appropriate. However, those terms have now been combined with the word “minimum”, which now poses the question, how does one define minimum competency? The areas of competency listed simply reflect the grouping and organization of NERC Standards which the Reliability Coordinator Certification exam is based upon. If this standard is really intended to prescribe which NERC Standards each certification exam is to be based upon perhaps it should

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Organization	Yes or No	Question 3 Comment
		<p>simply state that.</p> <p>Suggested alternative wording of R1:R1. Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC Reliability Operator certificate through the NERC Certification Process. The Reliability Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:1.1 Areas of Knowledge 1.1.1 Resources and Demand Balancing 1.1.2 Transmission Operations 1.1.3 Emergency Preparedness and Operations 1.1.4 System Operations 1.1.5 Protection and Control 1.1.6 Voltage and Reactive 1.1.7 Interchange Scheduling and Coordination 1.1.8 Interconnection and Reliability Operations and Coordination</p>
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
Hydro-Québec TransEnergie (HQT)	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. “Minimum competency” must be defined, and how it relates to continuing education. Requirement R1, item 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both</p>

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Organization	Yes or No	Question 3 Comment
		<p>“Transmission Operations” (1.1.2) and “System Operations” (1.1.4) are listed. Clarify the terms “System Operations” in 1.1.4, and “Transmission Operations”, and clarify the differences between them. Also, in R2 and R3 there are items 2.2 and 3.2 which list the certificates. Wouldn't it be appropriate to have an item “1.2 Certificates” for R1 as well?</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p> <p>Only one certificate can be used to meet compliance for Requirement R1, the Reliability Operator certificate.</p>		
ISO New England Inc.	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
Northeast Power Coordinating Council	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is clearer in the Measures Section, and also in the existing Standard which</p>

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Organization	Yes or No	Question 3 Comment
		<p>reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. “Minimum competency” must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping? Requirement R1, sub-requirement 1.1 Reliability Operator Areas of Competency reflects the areas on the NERC Reliability Operator Certification Exam. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same. Both “Transmission Operations” (1.1.2) and “System Operations” (1.1.4) are listed. Clarify the terms “System Operations” in 1.1.4, and “Transmission Operations”, and clarify the differences between them.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Nebraska Public Power District	No	Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read: R1. “Each Reliability Coordinator shall staff its real-time operating positions responsible for the control

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Organization	Yes or No	Question 3 Comment
		<p>of the Bulk Electric System with System Operators that have a valid NERC Reliability Operator certificate which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.”NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. 3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. 4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and consise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC

Organization	Yes or No	Question 3 Comment
		Certified individual.
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
MRO NERC Standards Review Subcommittee	No	<p>Concerning this Requirement, the MRO NERC Standards Review Subcommittee (NSRS) has the following concerns and request that the requirement is rewritten to read:</p> <p>R1. “Each Reliability Coordinator shall staff its real-time operating positions with System Operators that have obtained a valid NERC Reliability operator certificates which contain competencies as defined by the NERC System Operator Certification Program. The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a certification process. In other words, Real-time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted.

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Organization	Yes or No	Question 3 Comment
		<p>3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test than to update a NERC Standard.</p> <p>4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program.</p> <p>5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”. Requirement: “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p>		
Platte River Power Authority Operations Group	No	Demonstration of minimum competency for the Reliability Operator and maintaining certification is covered under PER-005-1. The requirement should read: Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system

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Organization	Yes or No	Question 3 Comment
		operator certification program in the areas listed to obtain a valid NERC Reliability Operator certificate.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
Brookfield Renewable Power Inc	No	Do not believe it applies to us.
<p>Response: The applicability of this standard is tied to the organization compliance registry and any associated delegation agreements. For more information please refer to Section 500 of the Rules and Procedures.</p>		
ERCOT ISO	No	ERCOT ISO doesn’t agree that competencies should be defined in the standard since they are already defined in the certification process.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Georgia System Operations Corporation	No	Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Reliability Coordinator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain a valid NERC Reliability Operator Certificate.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis and involve more than just recall of knowledge. The latest certification exams focus more heavily on application of knowledge.</p>		
Long Island Power Authority	No	LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Reliability Coordinator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess a valid and current NERC Reliability Operator Certificate."
<p>Response: : The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas</p>		

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Organization	Yes or No	Question 3 Comment
<p>listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>It is the entity’s responsibility to provide documentation showing that it has complied with the requirement. The measures define how to demonstrate compliance.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
E.ON U.S. LLC	No	<p>Operators must successfully complete the NERC Reliability Operator certification process. Thus, adding “Areas of Competency” in the requirement is redundant and only confuses what is needed for compliance.If “demonstration of minimum competency” is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures.E.ON U.S. suggests the wording of R1 be revised to:Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
American Electric Power (AEP)	No	<p>Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R1 should merely state that each registered applicable Reliability Coordinator (RC) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R1 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES.</p>		

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Organization	Yes or No	Question 3 Comment
American Transmission Company	No	Please see are specific comments in question 4. Proposed Modification: Each RC shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate.ATC suggest that the list of minimum competency be deleted.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
NIPSCO	No	R1 should be replaced by “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have a valid NERC Reliability Operator certificate”.Then the “Reliability Operator Certificate” and certification process should be defined in the Glossary of Terms or described within the standard.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The NERC System Operator Certification Program is a defined program in both the Rules & Procedure Section 600 & Appendix 6.</p>		
US Bureau of Reclamation	No	The certification should be specific in the citation by referring to the certification as N/RA/RC certification as appropriate for Reliability Coordinators. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requiriement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.
<p>Response: While we understand your concern that the lettering within the certificate number does not designate the type of certificate, the title does designate the type of certificate.</p> <p>The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate.</p>		
ISO RTO Council Standards Review Committee	No	The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification.As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency.The inclusion of the Areas of Competency should not be included in this requirement. There are no measures for this.. The inclusion of

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Organization	Yes or No	Question 3 Comment
		<p>this list in the standard adds confusion and uncertainty in the demonstration of compliance with requirement R1.As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Reliability Coordinator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with RC certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator's minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p>		
Consumers Energy Company	No	<p>The extra verbiage under "Areas of Competency" is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pepco Holdings, Inc - Affiliates	No	<p>The language in the Requirement doesn't match the language in the Measure. The sentence in R1 should read "...by obtaining and maintaining a valid NERC Reliability Operator certificate." Not "to obtain and maintain."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
Xcel Energy	No	The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		
Manitoba Hydro	No	The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency”.</p>		
Alberta Electric System Operator	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		

Organization	Yes or No	Question 3 Comment
		<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
BCTC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
NERC PCGC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certificate. This certificate demonstrates competencies through the NERC certification process.” Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
		American National Standard Institute (ANSI) guidelines.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
WECC Operations Training Subcommittee	No	The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate.Suggest the wording read “Each RC shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating</p>		

Organization	Yes or No	Question 3 Comment
		<p>positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>Midwest ISO Stakeholder Standards Collaborators</p>	<p>No</p>	<p>The standard as written requires minimum competency. “At least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate.” As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. The words, “at least” don’t seem necessary given the revision to the requirement.</p> <p>With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
Transmission and Reliability (TRO), TVA	No	<p>The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Entergy Services	No	<p>To “obtain and maintain a valid NERC Reliability Operator certificate” (as stated in R1) a System Operator is required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has “demonstrated minimum competency” in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate”.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
SERC Standards Review Group	No	<p>To “obtain and maintain a valid NERC Reliability Operator certificate” (as stated in R1) a System Operator is</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
		<p>required to (1) pass an examination and (2) accumulate a certain number of approved continuing education hours within a certain time period. In our opinion, neither of these requirements ensures that the operator has “demonstrated minimum competency” in the topic areas listed. Furthermore, the list of topics is unnecessary, since the draft standard requires only that the Reliability Operator obtain and maintain a valid certificate. To do so, a Reliability Operator will gain knowledge in all the technical areas listed, plus many more areas (through the accumulation of hours). To list specific topic areas is prescriptive and implies that the operator would have to be knowledgeable in subject areas over and above those required for obtaining/maintaining certification. We suggest R1 be changed to the following: “Each Reliability Coordinator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain a valid NERC Reliability Operator certificate”.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
FirstEnergy	No	<p>We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC’s System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states “... who have demonstrated minimum competency in the areas listed to obtain and maintain ...”. This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: “... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ...”</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate”.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 3 Comment
<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>Duke Energy</p>	<p>No</p>	<p>We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. Suggested rewording: "Each Reliability Coordinator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator Certificate."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate".</p>		
<p>Bonneville Power Administration</p>	<p>Yes</p>	
<p>City of Tallahassee (TAL)</p>	<p>Yes</p>	
<p>Gainesville Regional Utilities</p>	<p>Yes</p>	
<p>South Carolina Electric and Gas</p>	<p>Yes</p>	
<p>Southern Company Transmission</p>	<p>Yes</p>	

4. Requirement R2 of the draft standard reads:

R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

2.1 Areas of Competency

2.1.1 Transmission Operations

2.1.2 Emergency Preparedness and Operations

2.1.3 System Operations

2.1.4 Protection and Control

2.1.5 Voltage and Reactive

2.2 Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator"

Do you agree with Requirement R2 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the "Areas of Competency" came from and indicated that they should not be included within the standard. The SDT explained that the "Areas of competency" were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the "areas of competency" to be included in a training program. As envisioned, the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

A few commenters felt there should be an exception within the standard for trainees. The SDT explained that they believed that the entity responsible for the operation of the BES had to be certified. The SDT further explained that they did not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."

A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if an entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

Organization	Yes or No	Question 4 Comment
IPCo	No	area of competencies should not be included in this standard.
<p>Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives and Canadian System Operators participated in the job and task analysis used to identify the minimum competencies addressed in the certification exams. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Hydro-Québec TransEnergie (HQT)	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority." Minimum competency" must be defined, and how it relates to continuing education.</p>

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Organization	Yes or No	Question 4 Comment
		<p>Requirement R2, item 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.</p> <p>Both “Transmission Operations” (2.1.1) and “System Operations” (2.1.3) are listed. Clarify the terms “System Operations” in 2.1.3, and “Transmission Operations”, and clarify the differences between them.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires entities to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. The SDT believes that the Certification Exam is an evolving thing. It is continually undergoing scrutiny and modification. It is expected that the training that is to be developed and given to System Operators through PER-005 will provide the necessary mechanism to alleviate any differences between older exams and the current competencies referenced.</p> <p>To see the distinction between the competencies associated with the “Transmission Operations” and “System Operations” topics please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf</p>		
ISO New England Inc.	No	As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with

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Organization	Yes or No	Question 4 Comment
		<p>TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is key to any certification Standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
<p>Northeast Power Coordinating Council</p>	<p>No</p>	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard.</p> <p>The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority.</p> <p>"Minimum competency" must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping?</p> <p>Requirement R2, sub-requirement 2.1 Transmission Operator Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Transmission Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Transmission Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.</p> <p>Both "Transmission Operations" (2.1.1) and "System Operations" (2.1.3) are listed. Clarify the terms "System</p>

Organization	Yes or No	Question 4 Comment
		<p>Operations” in 2.1.3, and “Transmission Operations”, and clarify the differences between them.</p> <p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires entities to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline. The SDT believes that the Certification Exam is an evolving thing. It is continually undergoing scrutiny and modification. It is expected that the training that is to be developed and given to System Operators through PER-005 will provide the necessary mechanism to alleviate any differences between older exams and the current competencies referenced.</p> <p>To see the distinction between the competencies associated with the “Transmission Operations” and “System Operations” topics please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf</p>
Nebraska Public Power District	No	<p>Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read:R2. “Each Transmission Operator shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.2.1 CertificatesReliability OperatorBalancing, Interchange and Transmission OperatorTransmission Operator”NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <p>1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified.</p>

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Organization	Yes or No	Question 4 Comment
		<p>2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted.</p> <p>3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard.</p> <p>4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program.</p> <p>5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and consise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. 		

Organization	Yes or No	Question 4 Comment
		<p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>MRO NERC Standards Review Subcommittee</p>	<p>No</p>	<p>Concerning this Requirement, the MRO NSRS has the following concerns and request that the requirement is rewritten to read:</p> <p>R2. “Each Transmission Operator shall staff its real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.</p> <p>2.2 Certificates</p> <ul style="list-style-type: none"> o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator <p>The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real-time System Operators possess a valid NERC certificate. This has been a recommendation in the 14 August 2003 Blackout report and the load loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement

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Organization	Yes or No	Question 4 Comment
		<p>and we recommend that it be deleted.</p> <p>3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test than to update a NERC Standard.</p> <p>4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program.</p> <p>5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”. Requirement: “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis. Maintenance is accomplished within the System Operator Certification Program.</p>		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency and maintaining certification for the Transmission Operator is covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates.</p>

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Organization	Yes or No	Question 4 Comment
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. PER-005 does not include any requirements to maintain certification.</p>		
ERCOT ISO	No	ERCOT ISO doesn't agree that competencies should be defined in the standard since they are already defined in the certification process.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Entergy Services	No	For the reasons stated in question #3 above, we suggest R2 be changed to the following:”Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator”
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
SERC Standards Review Group	No	For the reasons stated in question #3 above, we suggest R2 be changed to the following:”Each Transmission Operator shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator”
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Georgia System Operations Corporation	No	<p>Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording.</p> <p>Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates:1. Reliability Operator2. Balancing, Interchange, and Transmission Operator3. Transmission Operator4. Balancing and Interchange Operator</p>

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Organization	Yes or No	Question 4 Comment
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
US Bureau of Reclamation	No	<p>It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requirement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.</p>
<p>Response: Please refer to the System Operator Certification Manual for an explanation of the different certificates and to which operating position they apply. There are four different types of system operator certifications (1. Reliability Operator, 2. Balancing and Interchange Operator, 3. Transmission Operator, and Balancing, Interchange, and 4. Transmission Operator), and of the four, the Reliability Coordinator certificate is the most comprehensive. The Reliability Coordinator certificate addresses the competencies required for the Transmission Operator certificate as well as the competencies required for the Balancing and Interchange Operator certificate and the Transmission Operator certificates. The Balancing, Interchange and Transmission Operator certificate addresses the competencies required for the Transmission Operator certificate as well as the certificate required for the Balancing and Interchange Operator certificate. Thus, if a System Operator has earned a Reliability Coordinator certificate or a Balancing, Interchange and Transmission Operator certificate, that System Operator has demonstrated competencies beyond those needed for the Transmission Operator.</p> <p>The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate.</p>		
Long Island Power Authority	No	<p>LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Transmission Operator shall staff its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:"</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>It is the entities responsibility to provide documentation of how you comply with the requirement. The measures define how to demonstrate compliance.</p>		

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Organization	Yes or No	Question 4 Comment
<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>E.ON U.S. LLC</p>	<p>No</p>	<p>Operators must hold one of the listed NERC certificates. Thus, adding “Areas of Competency” in the requirement is redundant and only confuses what is needed for compliance. If “demonstration of minimum competency” is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R2. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures. E.ON U.S. suggests the wording of R2 be revised to: Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R2.2.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
<p>American Electric Power (AEP)</p>	<p>No</p>	<p>Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R2 should merely state that each registered applicable Transmission Operator (TO) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Transmission Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R2 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		

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Organization	Yes or No	Question 4 Comment
Public Service Enterprise Group Inc. Companies	No	Please see response to question 3 with respect to the need to define System Operations.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. To see the competencies associated with the “System Operations” topic please review the Transmission Operator Certification Examination Content Outline posted at the following site: http://www.nerc.com/files/Transmission.pdf</p>		
NIPSCO	No	R2 should be replaced by “Each Transmission Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:” and leave the contents of 2.2. (listing the certificates is a nice addition to the standard). Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The NERC System Operator Certification Program is a defined program in both the Rules & Procedure Section 600 & Appendix 6.</p>		
Independent Electricity System Operator	No	Same comments as in question #4.Suggested alternative wording of R2:R2. Each Transmission Operator shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Transmission Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas:2.1 Areas of Knowledge 2.1.1 Transmission Operations 2.1.2 Emergency Preparedness and Operations 2.1.3 System Operations 2.1.4 Protection and Control 2.1.5 Voltage and Reactive2.2 Valid Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

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Organization	Yes or No	Question 4 Comment
ISO RTO Council Standards Review Committee	No	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency. As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Transmission Operator and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with TOP certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Consumers Energy Company	No	<p>The extra verbiage under “Areas of Competency” is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

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Organization	Yes or No	Question 4 Comment
<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pepco Holdings, Inc - Affiliates	No	<p>The language in the Requirement doesn't match the language in the Measure. The sentence in R2 should read "...by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and maintain."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Xcel Energy	No	<p>The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. This requirement should only address the minimum level of certification required for the Transmission Operator. For simplicity, all of the minimum certification requirements for each operator could be condensed into a table.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Manitoba Hydro	No	<p>The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.</p>
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>Agree that NERC certification alone does not guarantee competency - no paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply</p>		

Organization	Yes or No	Question 4 Comment
<p>fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. The requirements in PER-003-1 focus on these “minimum competencies.”</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency”.</p>		
Alberta Electric System Operator	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator Add sub-requirement 2.1 as an exception to R2 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
BCTC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
<p>areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
NERC PCGC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC TO Certificate. This certificate demonstrates competencies through the NERC certification process.” Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

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Organization	Yes or No	Question 4 Comment
		<p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
WECC Operations Training Subcommittee	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each TO shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
American Transmission Company	No	<p>The proposed language could be read to have multiple compliance obligations and should be re-written to have single compliance obligations. The two compliance obligations:</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
		<p>A) Transmission Operators have NERC Certified System Operators</p> <p>B) Transmission Operators have to demonstrate minimum competency in specific areas.</p> <p>Item (A)Based on the proposed measures entities can demonstrate that they have NERC Certified System Operators by producing valid NERC certificates.</p> <p>Item (B)ATC believes that the phrase “demonstration of minimum competency” can be deleted because having NERC Certified System Operators means having System Operators that have these minimum competencies. Does this phrase require us to show evidence above and beyond the NERC Certificate? If so, then the Measures do not provide any information on the types of evidence that could be used for compliance. If not, then it is our suggestion that the SDT deleted the minimum competency list from the requirement because it is duplicative with having NERC Certified System Operators. It’s our understanding that the team is including this language “demonstrate minimum competency” to address a FERC directive but we believe that the best approach is to provide FERC with a description of the NERC Certification program and exclude the minimum competency list from this standard. We proposed the following modifications: Transmission Operators shall staff its real-time operating positions with System Operators that have one of the following valid NERC Certification. Reliability Operator Balancing, Interchange and Transmission Operator</p> <p>ATC also recommends the removal of the phrase “obtain and maintain” because the requirement requires a valid NERC Certificate. All NERC Certificates have an effective period, and is therefore redundant to require System Operators to “obtain and maintain” their NERC Certificate because an entity would be non-compliant with this Standard if they allow an individual to work the real-time desk without a valid NERC Certificate.</p>
<p>Response: The SDT has modified the body of the requirement to more clearly state that having a valid NERC certificate will demonstrate minimum competency. The requirement now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The drafting team believes that the phrase, ‘obtain and maintain’ adds clarity to the required performance.</p>		
Midwest ISO Stakeholder Standards Collaborators	No	<p>The standard as written requires minimum competency. “At least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: “Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate.” As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
		<p>obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning.</p> <p>While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p> <p>With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p>		
Transmission and Reliability (TRO), TVA	No	<p>The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Transmission Operator shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Transmission Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p>		
FirstEnergy	No	<p>We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 4 Comment
		<p>Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states "... who have demonstrated minimum competency in the areas listed to obtain and maintain ...". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: "... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ..."</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Duke Energy	No	<p>We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording: "Each Transmission Operator shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:"</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Brookfield Renewable Power Inc	Yes	I believe our internal testing is enough for our small transmission system.
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p>		
Bonneville Power Administration	Yes	

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Organization	Yes or No	Question 4 Comment
City of Tallahassee (TAL)	Yes	
Gainesville Regional Utilities	Yes	
PacifiCorp	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

5. Requirement R3 of the draft standard reads:

R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed to obtain and maintain a one of the following valid NERC certificate.

3.1 Areas of Competency

3.1.1 Resources and Demand Balancing

3.1.2 Emergency Preparedness and Operations

3.1.3 System Operations

3.1.4 Interchange Scheduling and Coordination

3.2 Certificates

Reliability Operator

Balancing, Interchange and Transmission Operator

Balancing and Interchange Operator”

Do you agree with Requirement R3 as written for this standard? If not, please explain in the comment area.

Summary Consideration: Several commenters questioned where the “Areas of Competency” came from and that they should not be included within the standard. The SDT explained that the “Areas of competency” were extracted from the NERC System Operator Certification Program and that the SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard.

Several additional commenters questioned how minimum competency was to be demonstrated and that minimum competency should be located within the PER-005 Training Standard.. The SDT explained that minimum competency would be demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. The SDT further explained that maintenance is accomplished within the System Operator Certification Program and that PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The SDT also explained that the expectation was that the registered entity would use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.

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A few commenters felt there should be an exception within the standard for trainee's. The SDT explained that they believed that the entity responsible for the operation of the BES had to be certified. However, the SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks." A couple of commenters stated that they felt there needed to be a standard for the ERO to guarantee competency. The SDT explained that the development of a standard pertaining to the ERO was outside the scope of the industry approved SAR and that if a entity felt there was a need for the development of a new standard they should submit a SAR through the Standards Development process.

Organization	Yes or No	Question 5 Comment
IPCo	No	area of competencies should not be part of this standard
<p>Response: The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
Hydro-Québec TransEnergie (HQT)	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority functions and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads "Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." We believe the "responsibility for real-time operation" phrase is the key to any certification Standard. The real-time operating positions need to be staffed with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority. "Minimum competency" must be defined, and how it relates to continuing education. Requirement R3, item 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of</p>

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Organization	Yes or No	Question 5 Comment
		<p>Competencies will be addressed since the exam coverage areas are not the same. What is the difference between these certificates? Balancing, Interchange and Transmission Operator and Balancing and Interchange Operator</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training process to complete their training needs analysis and subsequently develop, deliver and evaluate the training of their System Operators, thereby ensuring that these competencies are addressed.</p> <p>The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. Although the SDT understands that Canadian entities are not FERC jurisdictional the SDT is required to respond to FERC directives. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
ISO New England Inc.	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Northeast Power Coordinating Council	No	<p>As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing Authority and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is clearer in the Measures Section, and also in the existing Standard which reads “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is the key to any certification Standard. The real-time operating positions need to be staffed</p>

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Organization	Yes or No	Question 5 Comment
		<p>with qualified (certified) System Operators requires definition. There are Transmission Owners that have other real-time operating and supervisory positions in the control room that support BES operations, but not necessarily System Operator functions. Suggest tying the requirements to decision making authority.</p> <p>"Minimum competency" must be defined, and how it relates to continuing education. The party responsible for administering and tracking continuing education must be identified. Would the NERC SOCCED database be the proper location for certification administration record keeping?</p> <p>Requirement R3, sub-requirement 3.1 Balancing Authority Areas of Competency reflects the areas on the NERC Reliability Operator, Balancing, Interchange and Transmission Operator, and Balancing and Interchange Operator Certification Exams. There does not appear to be a connection to the Continuing Education Program. The Continuing Education Program defines the continuing education hours needed for the different certifications. PER-002 and to be approved PER-005 require 32 Hours of Emergency Operations training. Nowhere does it break down the competencies to those identified on the NERC Reliability Operator Certification Exam. Additionally, the areas of the NERC Certification Exam changed in 2007. Prior to 2007, there were only 4 areas (Emergency Operations, Guides and Procedures, System Reliability, and Transmission Operations). It is not clear how the difference in the NERC Certification Exams taken by those prior to 2007 and demonstration of Competencies will be addressed since the exam coverage areas are not the same.</p>
<p>Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the "areas of competency" to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The "Areas of competency" were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies listed within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p> <p>The SDT believes that possessing a valid NERC certificate provides for verification of minimum competency.</p>		
City of Tallahassee (TAL)	No	BA's should have knowledge of Voltage and Reactive Control.
<p>Response: The knowledge of "Voltage and Reactive Control" you referenced is covered in the list of competencies associated with the System</p>		

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Organization	Yes or No	Question 5 Comment
Operations topic.		
Nebraska Public Power District	No	<p>Concerning this Requirement, NPPD has the following concerns and request that the requirement is rewritten to read:R3. "Each Balancing Authority shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.3.1 Certificates Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange Operator"</p> <p>NPPD believes this recommended change to the proposed standard is equally efficient and effective as the recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The Purpose of this Standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real Time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. NPPD agrees that System Operators need to be NERC Certified. 2. The statement of "demonstrated minimum competency" will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and NPPD recommends that it be deleted. 3. The use of the word "obtain" is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to "obtain" a valid NERC Operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC test competency than to update a NERC Standard. 4. The use of the word "maintain" crosses over into the well established NERC's SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC Certificate. Currently the NERC SOCCED program has three areas of obtaining CEHs, Continuing Education hours, NERC Standard hours, and Simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this Standard are fulfilled by the NERC SOCCED education program. 5. Understand that Competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are

Organization	Yes or No	Question 5 Comment
		<p>trained to a minimum level per function of the System Operator. The requirement must also align with the purpose statement. NPPD recommends adding the phrase “responsible for the control of the Bulk Electric System” after “real-time operating positions” to better align with the purpose of the standard. “Real-time operating positions” is not a clear and concise term and leads to ambiguity regarding which positions are required to be certified. The proposed standard has excluded language that permits trainees to work under the direction of a NERC Certified System Operator and NPPD would recommend that language be included in the standard that clarifies that trainees may work under the direct and continuous supervision of a NERC Certified individual.</p>
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. <p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 identifies the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
MRO NERC Standards Review Subcommittee	No	<p>Concerning this Requirement, the MRO NSRS has the following concerns and request that the requirement is rewritten to read:R3. “Each Balancing Authority shall staff its real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.3.2 Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator. The MRO NSRS believes this recommended change to the proposed standard is equally efficient and effective as the</p>

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Organization	Yes or No	Question 5 Comment
		<p>recommendations outlined in FERC Order 693 for the following reasons.</p> <ol style="list-style-type: none"> 1. The purpose of this standard is to ensure System Operators performing reliability-related task have demonstrated competency through a Certification Process. In other words, Real-time System Operators possess a valid NERC Certificate. This has been a recommendation in the 14 August 2003 Blackout report and the Load Loss event in the State of Florida on 26 February 2008. This subcommittee agrees that System Operators need to be NERC certified. 2. The statement of “demonstrated minimum competency” will and has lead to confusion and allows for interpretation since this is not defined and does not have an established basis. This is an unclear statement and we recommend that it be deleted. 3. The use of the word “obtain” is not a registered entity responsibility. The NERC System Operator Certification Program has the responsibility of ensuring that the competencies are demonstrated in order for a person to “obtain” a valid NERC operator certificate, not the individual registered entity. The NERC System Operator Certification Program has processes in place for ensuring that competencies are current. It is much easier for the NERC System Operator Certification Program to update a NERC competency test then to update a NERC Standard. 4. The use of the word “maintain” crosses over into the well established NERC’s SOCCED program of Continuing Education Hours (CEH) for maintaining of a valid NERC certificate. Currently, the NERC SOCCED program has three areas of obtaining CEHs, continuing education hours, NERC standard hours, and simulation hours. Before any hour of credit can be awarded to a NERC Certified System Operator, there is a rigorous Individual Learning Activity (ILA) that must be approved by NERC. It is apparent that the proposed competencies within this standard are fulfilled by the NERC SOCCED education program. 5. We understand that competencies are important for the basis of a training program, but the posting of these competencies within this standard go against the Systematic Approach to Training (SAT) as described in the BOT approved PER-005-1. The SAT process is a detailed task analysis to ensure that all competencies are trained to a minimum level per function of the System Operator.
<p>Response: The SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. 		

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<p>Minimum competency is demonstrated when the individual passes the NERC certification exam and obtains a valid NERC certificate. Maintenance is accomplished within the System Operator Certification Program. PER-005 requires an entity to identify the reliability-related tasks within the “areas of competency” to be included in a training program. The expectation is that the registered entity will use a systematic approach to training to complete its training needs analysis and subsequently develop, deliver and evaluate the training of its System Operators, thereby ensuring that these competencies are addressed.</p>		
Platte River Power Authority Operations Group	No	<p>Demonstration of minimum competency and maintaining certification for the Balancing Authority is covered under PER-005-1. The requirement should read: Each Transmission Operator shall staff its real-time operating positions with System Operators who have demonstrated minimum competency through the NERC system operator certification program in the areas listed to obtain one of the following valid NERC certificates.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
ERCOT ISO	No	<p>ERCOT ISO doesn’t agree that competencies should be defined in the standard since they are already defined in the certification process.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Entergy Services	No	<p>For the reasons stated in question #3 above, we suggest R3 be changed to the following:”Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator”</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
SERC Standards Review Group	No	<p>For the reasons stated in question #3 above, we suggest R3 be changed to the following:”Each Balancing Authority shall staff its real-time operating positions with System Operators who have achieved the minimum level of knowledge required to obtain and maintain one of the following valid NERC certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator”</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by</p>		

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obtaining and maintaining one of the following valid NERC certificates”.		
Georgia System Operations Corporation	No	Instead of listing the areas of competency why not refer to the System Operator Certification program. The statement below may be better wording. Each Transmission Operator shall staff its real-time operating positions with system operators who have met the minimum knowledge requirements of the System Operator Certification program to obtain and maintain one of the following valid NERC Certificates: 1. Reliability Operator 2. Balancing, Interchange, and Transmission Operator 3. Balancing and Interchange Operator 4. Transmission Operator
Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.		
US Bureau of Reclamation	No	It is not clear why the certificates include those for Reliability Operator, or Balancing, Interchange and Transmission Operator. The Standard also does not specifically reference the manual (System Operator Certification Program Manual-Final May 2006) upon which the certifications are based. The standard should be unambiguous with respect to how the certification is to be achieved. It will be difficult to track the compliance if the Manual is changed. Since certification is now tied to the manual through this requirement, the manual processes defined in the manual become a defacto requirement and subject to the standards approval process. The examination outline should also be included.
<p>Response: Please refer to the System Operator Certification Manual for an explanation of the different certificates and to which operating position they apply. There are four different types of system operator certifications (1. Reliability Operator, 2. Balancing and Interchange Operator, 3. Transmission Operator, and Balancing, Interchange, and 4. Transmission Operator), and of the four, the Reliability Coordinator certificate is the most comprehensive. The Reliability Coordinator certificate addresses the competencies required for the Transmission Operator certificate as well as the competencies required for the Balancing and Interchange Operator certificate and the Transmission Operator certificates. The Balancing, Interchange and Transmission Operator certificate addresses the competencies required for the Transmission Operator certificate as well as the certificate required for the Balancing and Interchange Operator certificate. Thus, if a System Operator has earned a Reliability Coordinator certificate or a Balancing, Interchange and Transmission Operator certificate, that System Operator has demonstrated competencies beyond those needed for the Balancing Authority.</p> <p>The standard only references the NERC System Operator Certification Program in the purpose statement. The operation of the NERC System Operator Certification Program is guided by Rules & Procedure Section 600. The requirement only states that the entity must have a valid NERC certificate.</p>		
Long Island Power Authority	No	LIPA suggests clarifying the term "real-time operating positions". It is our opinion that not all real time operating personnel are responsible for control of the Bulk Electric System. We also do not agree that the Registered Entity should be required to provide evidence that the System Operator was able to obtain a NERC certificate. NERC is responsible for the validity of its certification program. The requirement should relate to possessing a valid certificate. We suggest alternative phrasing: "Each Balancing Authority shall staff

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Organization	Yes or No	Question 5 Comment
		its real-time operating positions responsible for the control of the BES with System Operators who possess one of the following valid and current NERC Certificates:"
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>It is the entity’s responsibility to provide documentation of how it complies with the requirement. The measures define how to demonstrate compliance.</p>		
E.ON U.S. LLC	No	Operators must hold one of the listed NERC certificates. Thus, adding “Areas of Competency” in the requirement is redundant and only confuses what is needed for compliance.If “demonstration of minimum competency” is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R3. Because each system is unique E.ON U.S. does not believe ongoing minimum competency criteria beyond certification lends itself to a continent-wide standard with objectively determined measures.E.ON U.S. suggests the wording of R3 be revised to:Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a valid NERC certificate listed in R3.2.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
American Electric Power (AEP)	No	Please reference related comments stated in question #1. The existing version 0 language is consistent with our recommendation that the minimum competency reference should be removed from the PER-003-1 Standard and, more appropriately, be identified in the System Operator Certification Program Manual, and in PER-002 and -005 standards. R3 should merely state that each registered applicable Balancing Authority (BA) entity shall staff its real-time operating positions with an operator who holds and maintains a valid Balancing and Interchange Operator, Balancing, Interchange and Transmission Operator or Reliability Operator certification credential. AEP does believe that language from Version 0 (Measure M1) and its sub-measures should be maintained by establishing a sub-requirement or notation in R1 to allow operators without a valid applicable NERC certification credential, while in training or during an emergency, to perform reliability related tasks under the direct, continuous supervision and observation of a NERC-certified individual filling the position.

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Organization	Yes or No	Question 5 Comment
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
American Transmission Company	No	Please see are specific comments in question 4. Proposed Modification: Each BA shall staff its real-time operating positions with System Operators that have a valid NERC Reliability Operator certificate. Reliability Operator Balancing, Interchange and Transmission Operator Balancing and Interchange Operator. ATC suggest that the list of minimum competency be deleted.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Public Service Enterprise Group Inc. Companies	No	Please see response to question 3 with respect to the need to define System Operations.
<p>Response: The “Areas of competency” were extracted from the NERC System Operator Certification Program. The SDT is responding to a directive from FERC Order 693 which states that minimum competencies be included within this standard. For further clarification regarding these competencies referenced within the Requirement please refer to the NERC System Operator Certification Manual and Content Outline.</p>		
NIPSCO	No	R3 should be replaced by “Each Balancing Authority Operator shall staff its real-time operating positions with System Operators who have one of the following valid NERC certificates:” and leave the contents of 3.2. (listing these certificates is a nice addition to the standard) Then the certificates and certification process should be defined in the Glossary of Terms or described within the standard.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The NERC System Operator Certification Program is a defined program in both the Rules & Procedure Section 600 & Appendix 6.</p>		

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Organization	Yes or No	Question 5 Comment
Independent Electricity System Operator	No	<p>Same comments as in question #4. Suggested alternative wording of R3:R3. Each Balancing Authority shall staff its real-time operating positions with System Operators who have obtained and maintain a valid NERC certificate through the NERC Certification Process. The Balancing and Interchange Operator certification exam shall have content that ensures the System Operator has knowledge in the following areas: 3.1 Areas of Knowledge 3.1.1 Resources and Demand Balancing 3.1.2 Emergency Preparedness and Operations 3.1.3 System Operations 3.1.4 Interchange Scheduling and Coordination 3.2 Valid Certificates</p> <ul style="list-style-type: none"> o Reliability Operator o Balancing, Interchange and Transmission Operator o Balancing and Interchange Operator
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
ISO RTO Council Standards Review Committee	No	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. As stated in the response to Question #1, we believe “competency” extends beyond existing NERC examinations. Basing R1 on NERC Certification only demonstrates a level of knowledge, not competency. As the Standard is currently drafted, there appears to be no distinction among personnel in a control room that may be performing the Balancing and other functions. For example, there may be multiple desks in one control room and, based on responsibilities and duties, they may not all need to be staffed with BA certified personnel. This is more clear in the Measures section and indeed is more clear in the existing Standard, that reads, “Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” We believe the “responsibility for real-time operation” phrase is key to any certification Standard.</p>
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

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Pepco Holdings, Inc - Affiliates	No	The language in the Requirement doesn't match the language in the Measure. The sentence in R3 should read "...by obtaining and maintaining one of the following valid NERC certificates." Not "to obtain and maintain."
<p>Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Xcel Energy	No	The listing of the competencies is related to the entity (ERO) administering the certification process and do not belong in this standard. Consideration should be given to establishing a standard for the ERO outlining the minimum competencies required to be addressed in the certification program. Balancing Authority This requirement should only address the minimum level of certification required for the Reliability Coordinator. For simplicity, all of the minimum certification requirements for each could be condensed into a table.
<p>Response: The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>Your suggested wording places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p> <p>The real-time System Operators working for Balancing Authorities and Transmission Operators play a critical role in support of reliability and having these System Operators obtain a certification relevant to their job duties is a "defense in depth" strategy in support of reliability.</p>		
Manitoba Hydro	No	The measures do not match the purpose and requirements. In both the purpose statement and requirements "competency" is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more "application" type questions that do assess a System Operator's ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual's competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence</p>		

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<p>is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term “competency”.</p>		
Alberta Electric System Operator	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each BA shall staff its real-time operating positions with System Operators who hold one of the following valid NERC Certificates: o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator Add sub-requirement 3.1 as an exception to R3 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
BCTC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by</p>		

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<p>obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
NERC PCGC	No	<p>The minimum competency reference should be removed and the areas of competency deleted. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggested wording would read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC BA Certificate. This certificate demonstrates competencies through the NERC certification process.” Specific competencies do not need to be included in this standard. The certification process identifies specific competencies based on periodic job analysis. The development of competencies based on job analysis is a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Pacific Gas and Electric Company	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid the wording read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.”Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		

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		<p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
WECC Operations Training Subcommittee	No	<p>The minimum competency reference should be removed and the areas of competency deleted. The SDT does not provide a definition of competencies, nor is there a reference in how one would prove someone is competent by taking and passing an exam. Remove the reference to maintaining the certificate and change to hold a valid certificate. Suggest the wording read “Each BA shall staff its real-time operating positions with System Operators who hold a valid NERC RC, TO or BA Certification.” Add sub-requirement 1.1 as an exception to R1 to allow operators in training without a valid NERC Certificate as in the measures section of PER-003-0.</p>
		<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
Consumers Energy Company	No	<p>The role the individual has within the company may not be consistent with the registration of the company. For example, Consumers Energy is registered has a BA, however the role of Controllers may make TO certification more applicable in making them proficient at their job. The activity, not the company registration, should determine the appropriate certification. The extra verbiage under “Areas of Competency” is unnecessary. The Certification Process will determine what is demonstrated. The only thing the entity has</p>

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		control over is whether their operating staff is certified. Attempting to task each entity in defining the Certification requirements is unfair and not achievable. Leave the Certification Process writers to do the work of defining the Certification Process and the Operating entities worry about their staff being certified in accordance with that process.
<p>Response: The SDT feels that it is better to tie certification to registration to provide clarity and remove any ambiguity. You have the option to upgrade your certification.</p> <p>The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Midwest ISO Stakeholder Standards Collaborators	No	The standard as written requires minimum competency. “At least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. The requirement should be rewritten to: “Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate.” As the requirement is currently written, one could read the requirement to mean that a minimum competency must be demonstrated separately from obtaining and maintaining a valid NERC Reliability Operator certificate or that minimum competency is demonstrated by obtaining and maintaining a valid NERC Reliability Operator certificate. We are assuming the latter is what is intended. The suggested wording more clearly conveys that latter meaning. While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p> <p>With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p>		

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Organization	Yes or No	Question 5 Comment
Transmission and Reliability (TRO), TVA	No	<p>The standard as written requires minimum competency. Suggest “at least” needs to be added before minimum competency otherwise a strict reading would mean that exceeding minimum competency is not compliant. Recommend the requirement be rewritten to: “Each Balancing Authority shall staff its real-time operating positions with System Operators who hold a current, valid NERC Reliability Operator; Balancing, Interchange and Transmission Operator; or Balancing and Interchange Operator certificate.” While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure. Recommend these be removed from the standard.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693. As revised, the drafting team does not believe that the additional words, “at least” are needed.</p>		
FirstEnergy	No	<p>We agree that certain minimum competencies are required for a System Operator to reliably perform reliability-related tasks that effect the Bulk Electric System. However, since NERC's System Operator Certification Program specifically tests for these competencies as listed in the proposed requirements, and then issues a NERC Certificate based on these competencies, we do not see a need to spell out the competencies in the wording of these requirements. The requirements of this standard should be just to obtain the applicable valid NERC certificate and the verbiage in 1.1, 2.1, and 3.1 is not required. If the SDT decides to not remove the verbiage regarding areas of competencies, we ask that the SDT consider revising the verbiage in main requirements R1, R2, and R3 that states "... who have demonstrated minimum competency in the areas listed to obtain and maintain ...". This statement could be misleading as it may imply that an operator must first demonstrate the competency and then obtain a certificate (i.e two different actions). However, the operator actually demonstrates his competency BY taking the NERC examination which allows the operator to obtain the certificate. We suggest slight rewording of the phrase as follows: "... who have demonstrated minimum competency in the areas listed by obtaining and maintaining ..."</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 5 Comment
Duke Energy	No	We believe that this requirement should be reworded to clarify that only System Operators who fill real-time operating positions and have responsibility for control of the Bulk Electric System must be certified. Also, the way the requirement is currently written, an auditor might erroneously conclude that some demonstrated minimum competency in the listed areas is required, beyond the competency demonstrated by obtaining and maintaining one of the listed valid NERC certificates. Suggested rewording: "Each Balancing Authority shall staff its real-time operating positions with System Operators responsible for control of the Bulk Electric System, who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:"
<p>Response: The SDT has modified the body of the requirement which now reads "Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".</p>		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	
Gainesville Regional Utilities	Yes	
PacifiCorp	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	

6. Do you agree with the Measure for the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters did not believe that the purpose matched the measures. The standards process does not require that the measures tie to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is evidence that the responsible entity’s System Operators have obtained and maintained a valid NERC Certificate.

Some commenters did not believe that the documentation required to show compliance should be stated in the measure or stated that the measure was not clear on what was needed to reflect compliance. The SDT explained that for these requirements, some of the evidence isn’t “flexible” and must be clearly stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.

Some commenters indicated that it is not necessary to have a copy of each System Operator’s NERC certificate on file. The SDT modified Measure M1.3 to provide greater flexibility in how to demonstrate compliance. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.

A few commenters indicated that there should be some allowance within the measure for transition to a back-up control center. The SDT explained that it believed that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.

Organization	Yes or No	Question 6 Comment
Manitoba Hydro	No	: The measures do not match the purpose and requirements. In both the purpose statement and requirements “competency” is mentioned, yet there is no measures in place for this. NERC certification alone does not guarantee competency. Our definition for competency is it encompasses a combination of knowledge, skills, and behavior to perform a specific role. Yes there does not appear to be any linkage to the measures for skills and behaviors. This leaves it open for interpretation by auditors in the future and will end up being a potential hindrance to improving the competence of System Operating personnel across the industry. If the intent to ensure Operating personnel has the proper certification then this is all that should be in this standard and no mention of competency.
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is obtaining and maintaining a valid NERC Certificate. However, the SDT has modified the purpose statement to include the term “NERC System Operator Certification Program” and removed the term</p>		

Organization	Yes or No	Question 6 Comment
<p>“competency”. The minimum competency issue has been included in this standard in response to a FERC directive from Order 693.</p>		
Xcel Energy	No	<p>A copy of an operator's NERC certificate is not strong evidence of certification and leads organizations to keep track of vitrually worthless pieces of paper or files. Is there something (seal, hologram, mag strip) on the certificate itself that would indicate its authenticity? A more robust method is to verify the individual has an active certifcate as listed in the NERC database.In general, the measures should not limit the methods for demonstrating compliance to those methods listed. It should indicate that other methods may be acceptable.</p>
<p>Response: The SDT believes that evidence of compliance must come from the responsible entity. The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>		
BCTC	No	<p>Add measures section from PER-003-0 regarding when in transit to backup center.</p>
<p>Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group wqould take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
American Transmission Company	No	<p>ATC agrees with the measure as written but believe that the requirements and purpose statement need to be modified to match. See our comments to Questions 1, 3, 4 and 5</p>
<p>Response: The SDT believes that it is not required to tie the measures to the purpose of the standard. The measures define how to demonstrate compliance with the Requirement. The measure for meeting the Requirement is evidence that the responsible entity’s System Operators have obtained and maintained a valid NERC Certificate.</p> <p>However, the SDT has modified the purpose and body of the requirement. These now read:</p> <ul style="list-style-type: none"> • Purpose: “to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for the control of the Bulk Electric System”. • Requirement: “Each (RC TO BA) shall staff its Real-time operating positions performing (RC TO BA) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”. 		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
Hydro-Québec TransÉnergie (HQT)	No	<p>Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the requirement R1.1 in the existing Version 0 Standard ...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft.</p> <p>A copy of each of the real-time operating personnel’s NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database.</p> <p>The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005).The measures need to clearly state that they only apply to those operators who have primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.</p>
<p>Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency. A System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
Northeast Power Coordinating Council	No	<p>Compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. The Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard ...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is clearer and less ambiguous than the current draft.</p> <p>A copy of each of the real-time operating personnel’s NERC certification is not needed. The information is readily available on-line within the NERC SOCCED database.</p> <p>The measures focus on the list of real time operating positions, the list of NERC Certified Operators, copies of</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
		<p>the NERC Certificates and work schedules that show that only NERC Certified personnel were staffing the positions. However, there is no mention of maintenance of certifications (i.e. continuing education hours to maintain certification or emergency operations hours required by PER-002 or PER-005)The measures need to clearly state that they only apply to those operators who have primary responsibility.</p>
<p>Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency. A System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
ERCOT ISO	No	<p>ERCOT ISO suggests the measures be revised to say “Each Reliability Coordinator, Transmission Operator and Balancing Authority shall show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate. Evidence may include:”</p>
<p>Response: The SDT believes that in order to provide for evidence of compliance the documentation required should be stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.</p>		
Long Island Power Authority	No	<p>LIPA points out that similar to our prior comment the measurement does not speak to the phrase of "demonstrating minimum competencies required to obtain and maintain a valid NERC Certificate", rather only the possession of a valid NERC certificate is indicated. Since NERC Auditors utilize the Standard's requirement and not the Standard's measurement as the benchmark for compliance, LIPA suggests that the measurement be utilized to refine the phrasing of the requirement. Similar to the previous comment, the measurement should be specific to those real time operating positions responsible for the control of the BES. We suggest the following: Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its real-time operating positions responsible for the control of the BES with System Operators that have an appropriate, valid NERC certificate".</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
Duke Energy	No	Measure M1.3 should be revised to only require a list of NERC-certified personnel with their NERC certification numbers and expiration dates. The actual certificates reside with NERC.
<p>Response: The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>NERC maintains the database with certificate records but the actual certificate resides with the entity.</p>		
FirstEnergy	No	Regarding M1.3, the entity may not specifically have copies of every operator's certification. We feel that all that is necessary is to show evidence of valid certificate numbers.
<p>Response: The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>		
Entergy Services	No	The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing “shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:” to “shall have evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate that may include:”.
<p>Response: Compliance for these three requirements is measured in the same way and therefore, it is more efficient to only state the measure once. The SDT believes that in order to provide for evidence of compliance, the documentation required should be stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.</p>		
Midwest ISO Stakeholder Standards Collaborators	No	The general trend for new and updated standards has been that each requirement has its own measure. These four requirements should have separate measures for consistency. The evidence list in the measure proposes that it is the only evidence that could be presented. Most measures are written such as the list of evidence is one way to demonstrate compliance but that there may be others not recognized here. We suggest the measures be revised to reflect this by changing “shall have the following evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate:” to “shall have evidence to show that it staffed its real-time operating positions with System Operators that have an appropriate, valid NERC certificate that may include:”.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
<p>Response: Compliance for these three requirements is measured in the same way and therefore, it is more efficient to only state the measure once. The SDT believes that in order to provide for evidence compliance, the documentation required should be stated in the measure. This provides clear guidance on what the industry participants need and what the audit teams will be looking for to reflect compliance.</p>		
IPCo	No	The measure should be what is required to show compliance.
<p>Response: The SDT feels that the measures reflect what is necessary to show compliance with the requirement(s).</p>		
Alberta Electric System Operator	No	The measurements do not address competencies as stated in the requirements. However, this in not an issue if the list of competencies is removed from the standard. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center.
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
Pacific Gas and Electric Company	No	The measurements do not address competencies as stated in the requirements. There is also no allowance for emergencies, we suggest a measure as stated in PER-003-0 M1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours." Add measures section from PER-003-0 regarding when in transit to backup center.
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
WECC Operations Training	No	The measurements do not address competencies as stated in the requirements. There is also no allowance

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
Subcommittee		<p>for emergencies, we suggest a measure as stated in PER-003-0 M1.2 “During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours.” Add measures section from PER-003-0 regarding when in transit to backup center.</p>
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
ISO RTO Council Standards Review Committee	No	<p>The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard...”Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.” This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft. There are no measures for the sub-requirements of areas of competency. These should be removed from the requirement.</p>
<p>Response: The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity. Based on stakeholder comments, the requirements were all modified for greater clarity.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>		
Platte River Power Authority Operations Group	No	<p>The NERC Glossary of Terms for System Operator includes Generator Operator which this standard is not applicable to. It should read:...with Reliability Coordinator, Transmission Operator and Balancing Authority system operators that have an appropriate, valid NERC certificate (R1, R2, R3):</p>
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators which is included in the definition.</p>		
Pepco Holdings, Inc - Affiliates	No	<p>The wording in the Measures paragraph should be changed to match the language in the requirements “... staffed its real-time operating positions with System Operators who have demonstrated the appropriate</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
		competencies by obtaining the appropriate valid NERC Certificate.”
<p>Response: The SDT disagrees that the Measure should mimic the language in the Requirement. The SDT believes that the Measure should state how an entity is to prove that they were compliant with the requirement.</p>		
Nebraska Public Power District	No	<p>These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its real-time operating positions responsible for the control of the Bulk Electric System with System Operators that have one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC certified individual filling the required position.</p> <p>In addition, measures 1.1, 1.2 & 1.4 should include the phrase “responsible for the control of the Bulk Electric System” to modify the term real-time operating positions to better align with the purpose. The term “real-time operating positions” is unclear and ambiguous and not defined. There needs to be clarity on which positions fall under this standard.</p>
<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT disagrees that the Measure should mimic the language in the Purpose.. The SDT believes that the Measure should state how an entity is to prove that they were compliant with the requirement.</p>		
MRO NERC Standards Review Subcommittee	No	<p>These measures will help the RC, BA, & TOP to be compliant but do not reflect what the requirement as currently written is requesting. These measures do support the proposed recommendation to rewrite R1, R2, and R3 that: Each (RC, BA, TOP) shall staff its Real-time operating positions with System Operators that have obtained one of the following valid NERC certificates which contain competencies as defined by the NERC System Operator Certification Program.</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 6 Comment
<p>Response: The SDT disagrees that the Measure is supposed to explain what the requirement is requesting. The SDT believes that the Measure should state how an entity is to prove that they were compliant with the requirement.</p>		
<p>American Electric Power (AEP)</p>	<p>No</p>	<p>While AEP agrees with the measure and sub-measures that are identified in the revised standard, we are concerned with the loss of the content from Measure M1 of the last version. As previously described, AEP believes that the M! language should be maintained, but as a requirement rather than as a measure. Correspondingly, we suggest either the former measure be added as a sub-requirement or notation in requirements R1, R2, and R3, or the former measure be added as an additional requirement in the following format:R4. Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall have NERC-certified operating personnel on shift in required positions at all times with thefollowing exceptions: R4.1 While in training, an individual without the proper NERC certification credential maynot independently fill a required operating position. Trainees may perform criticaltasks only under the direct, continuous supervision and observation of the NERC certifiedindividual filling the required position. R4.2 During a real-time operating emergency, the time when control is transferred from aprimary control center to a backup control center shall not be included in thecalculation of non-compliance. This time shall be limited to no more than four hours.</p>
<p>Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
<p>City of Tallahassee (TAL)</p>	<p>Yes</p>	<p>However, What are the auditors going to look for me to prove? Are they going to ask me to prove that each certificate issued (or renewed)asked questions from the applicable competencies? This would be above the Measures as written, so how do we get Compliance to acknowledge this? This information will need to come from the Certification Process and that record keeping.</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p>		

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Organization	Yes or No	Question 6 Comment
ISO New England Inc.	Yes	<p>The Measures more accurately depict the expectations of the Standard than its Requirements. Unfortunately, compliance determination, assessment, audits, etc. are to be completed against meeting the Requirements of the Standard. We believe the Requirements could be clarified by including wording comparable (or identical) to the Requirement 1.1 in the existing Version 0 Standard..."Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System." This is one instance where we believe Version 0, as currently written, is more clear and unambiguous than the current draft.</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity. Each of the three requirements was modified – the requirement for the Reliability Coordinator was changed to read as follows:</p> <p>Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate.: (followed by a list of topics that serve as the basis for the relevant certification exam)</p>		
South Carolina Electric and Gas	Yes	<p>While we do agree with the Measure for the requirements of this standard, we do NOT agree with removal of the exceptions (M1.1 and M1.2) from the Measure in PER-003-0. These exceptions involve trainees (M1.1) and transferring control from a PCC to a BCC(M1.2).</p>
<p>Response: The SDT acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p> <p>The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p>		
Bonneville Power Administration	Yes	
Brookfield Renewable Power Inc	Yes	

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Organization	Yes or No	Question 6 Comment
Consumers Energy Company	Yes	
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
PacifiCorp	Yes	
Public Service Enterprise Group Inc. Companies	Yes	
SERC Standards Review Group	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
E.ON U.S. LLC		
NIPSCO		No comment at this time
NERC PCGC		No opinion

7. Do you agree with the Violation Risk Factors for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt the “High” VRF rating was too high and that it should be no higher than Medium. The SDT explained that the current standard contains a High VRF. The SDT believes that this is appropriate with the definition of a high VRF:

High Risk Requirement

A requirement that, if violated, **could** directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

The SDT also stated it was not saying that non-compliance **would** necessarily lead to instability, separation or cascading outages. However, in the event of an emergency an unqualified System Operator may not know what to do and therefore the System Operator’s actions or inactions **could** directly cause or contribute to BES instability, separation, or cascading outages, or could place the BES at an unacceptable risk of instability, separation or cascading outages.

Some commenters stated that they felt there should be differentiation between small and large entities due to the differing impacts on the reliability of the BES. The SDT explained that they believed that due to the fact that an entity was registered as one of the applicable entities implied that you could have an effect on the reliability of the BES. The size of an entity is one factor that the Compliance Enforcement Authority may consider when determining the size of a penalty or sanction for noncompliance.

A few of the commenters felt there should be an exception for trainees. The SDT explained that the individual responsible for the operation of the BES must be certified and that this standard was not allowing for exceptions. The SDT further explained that allowing exceptions within the standard could allow for violation of the requirement during conditions that did not warrant said actions. Instead, the SDT believes that if the conditions warranted violating a requirement, the audit group would consider all of the pertinent information regarding the violation prior to assessing a violation. However, the SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
ERCOT ISO	No	Failure to have a certified System Operator on a single shift does not necessarily lead directly to cascading outages, blackout, etc. A high Violation Risk Factor (VRF) presumes incorrectly that the System Operator hasn't been trained and that no other System Operators are involved in making decisions. ERCOT ISO recommends a low or medium VRF for each of the requirements.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions could result in BES instability, separation, or cascading outages.</p>		
City of Tallahassee (TAL)	No	High VRF is too high. Failure to be certified in and of itself does not pose the threat to the BES. The ACTIONS, and the results of those actions, by the System Operator is the threat. Those threats are covered by other standards VRF's.
<p>Response: The SDT agrees with your comment that it is the actions, or possibly inactions, is the threat. However, in the event of an emergency an unqualified operator may not know what actions to take and therefore incorrect actions or lack of action could result in BES instability, separation, or cascading outages. In addition, the current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF.</p>		
Gainesville Regional Utilities	No	I disagree with the violation risk factors unless they are applied based on the affect of the Bulk Electric System , not aan individual system. In other wordsa 10,00 Mw system may have a higher vsI due to magnitude alone as compared to a 100 Mw system.
<p>Response: The SDT believes that the fact that you are registered as one of the applicable entities implies that you have an effect on reliability. The Sanction Guidelines give the Compliance Enforcement Authority the authority to consider the size of an entity as a factor in determining the size of a penalty or sanction.</p>		
Brookfield Renewable Power Inc	No	It does not consider a small transmission system inside a large system. Our system is basically a tap into HQ grid.
<p>Response: The SDT believes that the fact that you are registered as one of the applicable entities implies that you have an effect on reliability. The Sanction Guidelines give the Compliance Enforcement Authority the authority to consider the size of an entity as a factor in determining the size of a penalty or sanction.</p>		
Transmission and Reliability (TRO), TVA	No	It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. Because it presents an indirect risk, we

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
		recommend a low or medium VRF for the requirements.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p>		
Manitoba Hydro	No	It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don’t match the requirements will not hit the target for improving reliability.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
BCTC	No	Not defined.
<p>Response: The SDT does not have sufficient information to understand your concern as you have stated it.</p>		
IPCo	No	Risk factors should include levels of non-compliance in current PER-003 in this standard
<p>Response: The SDT believes that you may have confused VRFs with VSLs. The VRF measures the affect non-compliance could have on the BES. The VSL measure hw significantly the requirement was violated.</p>		
Nebraska Public Power District	No	The Bulk Electric System will not necessarily fail if a non-certified System Operator is operating the system. Conversely there could be a cascading, uncontrolled separation and instability if a certified System Operator was on-shift. If other standards are followed, having certified personnel won’t lead to a collapse of the Bulk Power System (we operated for years without certified operators). The Violation Risk Factor should be no higher than Medium.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p>		
US Bureau of Reclamation	No	<p>The lack of certification may not be the same as competency. Certification is not same as competency based on the current process for achieving certification. If the certification was tied to known failures to follow procedures, an argument could be made that a risk for that operator is higher. Otherwise, there is no imminent threat by the operator who failed to report on hour of training needed to keep certification current.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p> <p>In addition, the proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		
Georgia System Operations Corporation	No	<p>The violation risk factor should be set between low and medium but not high. An improper NERC certificate does not warrant a high risk to the BES if the operator has the correct knowledge but not the correct certificate.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator’s actions or inactions could result in BES instability, separation, or cascading outages.</p> <p>In addition, the proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
Platte River Power Authority Operations Group	No	The Violation Severity Levels are included in the draft of the standard, however, we weren't able to find the Violation Risk Factors.
Response: The VRF is located at the end of each of the requirements.		
Midwest ISO Stakeholder Standards Collaborators	No	<p>The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained.</p> <p>Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or cascading outages.</p> <p>In addition, the proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p> <p>The criteria for a High VRF states, "A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . ."</p>		
Xcel Energy	No	The VRFs confuse importance with risk. It is important to have certified system operators. However, failure to have a certified system operator on a single shift does not present a high risk to the interconnection. The definition of a high VRF requires that non-compliance would lead directly to a cascading outages, blackout, etc. A high risk factor presumes that the operator hasn't been trained. There are other requirements that ensure the system operator will be trained.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 7 Comment
		<p>Secondly, an event will actually have to occur on the system to have an impact. If no event occurs, no cascading outages, blackout, etc can occur. Thus, two other dependencies must occur for cascading outages, blackout, etc to occur. When there are other dependencies, these requirements' risk hardly meets the direct requirement in the definition of high risk. Because it presents an indirect risk, we recommend a medium VRF for the requirements.</p>
<p>Response: Violation Risk Factors are assessments of the potential risk to the BES associated with a violation of the associated requirement. The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or cascading outages.</p> <p>The criteria for a High VRF states, "A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . ."</p>		
Entergy Services	No	<p>This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs for R1, R2 & R3 should be shown as LOW.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or cascading outages.</p> <p>The criteria for a High VRF states, "A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . ."</p>		
SERC Standards Review Group	No	<p>This group does not feel that meeting the minimum knowledge level required to obtain/maintain certification should have associated with it a HIGH risk factor. This draft standard is concerned with obtaining and maintaining a NERC certificate - that is, passing an exam and accumulating continuing education hours. Since certification alone does not ensure competency in performing reliability-related tasks, we feel the VRFs for R1, R2 & R3 should be shown as LOW.</p>
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to BES instability, separation, or cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore the System Operator's actions or inactions <i>could</i> result in BES instability, separation, or</p>		

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Organization	Yes or No	Question 7 Comment
<p>cascading outages. The criteria for a High VRF states, “A requirement that, if violated, <i>could</i> directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . . ”</p>		
MRO NERC Standards Review Subcommittee	No	
American Electric Power (AEP)	Yes	
Bonneville Power Administration	Yes	
Duke Energy	Yes	
FirstEnergy	Yes	
Hydro-Québec TransEnergie (HQT)	Yes	
Independent Electricity System Operator	Yes	
Long Island Power Authority	Yes	
Northeast Power Coordinating Council	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
South Carolina Electric and Gas	Yes	

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Organization	Yes or No	Question 7 Comment
WECC Operations Training Subcommittee	Yes	
Southern Company Transmission		There is no VRF matrix in this standard.
Response: The VRF is located at the end of each requirement.		
NIPSCO		No comment at this time.
NERC PCGC		No opinion

8. Do you agree with the Violation Severity Levels for each of the requirements in the standard? If not, please explain in the comment area.

Summary Consideration: Several commenters felt that there should be lower VSL's and not just "severe" and that there could be circumstances that would not allow for compliance to the standard. The SDT explained that they believed the Real-time operation of the power system was dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times. If there is ever a situation where there is not a certified System Operator in a real-time position that has demonstrated the minimum competencies needed for a NERC certificate, then the intent of this requirement has been missed – and this meets the criteria for assignment of a Severe VSL and the SDT has implemented a binary approach to the VSLs.

The SDT believes this approach is conducive to encouraging the appropriate behavior and meets the intent of NERC's VSL Guidelines and FERC's VSL Guidelines.

Some commenters indicated that the VSLs should be linked to a specific incident occurring, and the team noted that the Sanction Guidelines provide the Compliance Enforcement Authority the latitude to consider mitigating and aggravating factors when determining the size of a penalty or sanction, looking at the complete situation at the time of the violation and intent of the entity regarding staffing.

A few entities stated that they believed there should be varying VSLs dependent upon an entity's registration. The Sanction Guidelines give the Compliance Enforcement Authority the latitude to consider the size of an entity as a factor when determining the size of a penalty or sanction associated with noncompliance. The SDT also believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. The SDT further explained that while the Reliability Coordinator's System Operators have the highest level of operating authority to take whatever action is necessary to preserve reliability of the BES, the Transmission Operator's System Operators and the Balancing Authority's System Operators are the first line of defense and also play a critical role in taking preventive and corrective actions.

Organization	Yes or No	Question 8 Comment
American Electric Power (AEP)	No	AEP believes that the functional model and Standard hierarchy, with the Reliability Coordinator being the ultimate authority issuing directives, may suggest different violation severity levels. Although it is definitely understood that each registered applicable entity could have a significant impact in the reliability of the BES, there are inherently differently levels of potential impact related to the specific reliability related job tasks. Therefore, the SDT should reconsider the VSLs based on these differences.
<p>Response: The SDT believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. While the Reliability Coordinator's System Operators have the highest</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
<p>level of operating authority to take whatever action is necessary to preserve reliability of the BES, the Transmission Operator's System Operators and the Balancing Authority's System Operators are the first line of defense and also play a critical role in taking preventive and corrective actions.</p>		
Platte River Power Authority Operations Group	No	<p>Although we understand that FERC is most likely not in agreement, it would seem appropriate to have criteria for Lower, Medium and High Severity Levels opposed to an all or nothing approach.</p>
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
Pacific Gas and Electric Company	No	<p>Comments: The VSL should take into consideration various levels of non-compliance, such as those in PER-003-0. PER-003 listed four levels of non-compliance in which the entity did not meet the requirement for a total time between 0-72 hours during a one month period. Certain circumstance may warrant situations in which an entity may not be able to comply with the staffing requirements.</p>
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
ERCOT ISO	No	<p>ERCOT ISO thinks that Violation Severity Levels (VSLs) should be based on the number of System Operators that don't have the proper NERC certification.</p>
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. In addition, FERC's VSL Guidelines don't allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		

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Organization	Yes or No	Question 8 Comment
Hydro-Québec TransÉnergie (HQT)	No	Everything is a “Severe.” While we agree with the principle of having a NERC certified operator present at all times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
Northeast Power Coordinating Council	No	Everything is a “Severe.” While we agree with the principle of having a NERC certified operator present at all times, there must be consideration for the occurrences of emergencies, medical or family or otherwise. If a System Operator has to leave, it may take time for a qualified relief person to replace that individual.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
SERC Standards Review Group	No	For the reasons stated in question # 7 above, a violation of these requirements should not be considered severe. However, we are aware of the drafting team’s constraint to assign only a Severe VSL to standard requirements that are binary in nature.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
Entergy Services	No	For the reasons stated in question # 7 above, if a violation is found, the VSL should be shown as LOWER VSL to MEDIUM VSL.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. In addition, FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with</p>		

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Organization	Yes or No	Question 8 Comment
Requirement R1 a Severe VSL.		
Midwest ISO Stakeholder Standards Collaborators	No	In Paragraph 27 of the June 19, 2008 Order on Violation Severity Levels Proposed by the Electric Reliability Organization, the Commission expressed “as a general rule, gradated Violation Severity Levels, wherever possible , would be preferable to binary Violation Severity Levels”. Based on the Commission’s preference, we suggest VSLs could be based on the number of System Operators that don’t have the proper certification. Four levels should be created.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. Note that while the VSL Order referenced does indicate a preference for multiple levels of VSLs where appropriate, FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
Manitoba Hydro	No	It just seems too high as certification alone does not mean the system will be operated more reliably. It guarantees only a minimum of knowledge. Even using competency, if the measures don’t match the requirements will not hit the target for improving reliability.
<p>Response: The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
BCTC	No	RC should have a higher severity level than TO or BA.
<p>Response: The SDT believes that any entity could have a significant impact on the BES and that there is no good method to determine which entities would have a greater impact versus those that would have a lesser impact. FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
Transmission and Reliability	No	Recommend a gradation of severity levels be developed. A severe VSL for all violations does not

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
(TRO), TVA		appropriately reflect the degree by which an entity has failed to meet the requirement.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
US Bureau of Reclamation	No	The lack of certification may not be the same as competency. As such the severity level should be consistent with those associated with documentation.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p> <p>The VSL focuses on the requirement – which is to staff with System Operators who have valid NERC certificates.</p>		
Georgia System Operations Corporation	No	The violation severity levels should be high if the operator does not have a NERC certificate at all. A medium violation severity level should be set if the operator has an improper NERC certificate.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior. FERC’s VSL Guidelines don’t allow modifying VSLs in a way that would have the unintended consequence of lowering the current level of compliance – and the VSLs developed for PER-003-0 assign noncompliance with Requirement R1 a Severe VSL.</p>		
WECC Operations Training Subcommittee	No	The VSL should take into consideration various levels of non-compliance, such as those in PER-003-0. PER-003 listed four levels of non-compliance in which the entity did not meet the requirement for a total time between 0-72 hours during a one month period. Certain circumstance may warrant situations in which an entity may not be able to comply with the staffing requirements.
<p>Response: The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
<p>The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p> <p>In terms of a specific incident occurring, the enforcement and the appeals process would have to look at the complete situation at the time of the violation and the intent of the entity regarding staffing.</p>		
Xcel Energy	No	The VSLs appear to be incomplete.
<p>Response: The SDT does not have enough information to provide a response to your comment.</p>		
E.ON U.S. LLC	No	<p>The VSLs assume all RT operating positions are staffed at all times - this may not always be true. For example, during off-peak periods RT operating positions may be combined and covered by fewer individuals. The standard should not dictate that all potential RT operating positions need to be staffed at all times. The entity will determine adequate staffing levels with the standard requiring that such positions be staffed by certified personnel.</p>
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The VSLs were revised to use the same language as the revised requirements – as shown with the VSL for R1:</p> <p>R1 Severe VSL: The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with an individual having a valid NERC certificate as defined in Requirement R1.</p> <p>The SDT disagrees that the VSL is assuming that all Real-time operating positions are filled at all times. The SDT believes that the VSL is stating that if a Real-time operating position is being filled it must be filled with a NERC Certified System Operator.</p>		
Brookfield Renewable Power Inc	No	There is not time to have operators trained first.
<p>Response: The SDT has modified the timeline to have operators certified to twelve months after FERC approval.</p>		
City of Tallahassee (TAL)	No	<p>There is no caveat for the old "emergency clause" for transitioning to a Back Up Facility. The current Version 0 includes this in Measure M.1.2 "During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours."</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
<p>Response: The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>		
Nebraska Public Power District	No	There should be differing severity levels based on the amount of time a non-certified operator worked unsupervised. Having a non-certified operator work one shift is much less severe than having all non-certified operators. The matrix should reflect the differing severity.
<p>Response: The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
IPCo	No	violation factors should include levels of non-compliance in current PER-003 in this standard
<p>Response: The levels of non-compliance in PER-003 are no longer in effect. These were replaced with VSLs. A VSL drafting team developed a set of VSLs for PER-003 and these were approved by stakeholders in August 2009, and were filed for approval. While not yet approved, they do propose setting a single VSL for noncompliance with Requirement R1 in PER-003 – a single Severe VSL.</p> <p>The Real-time operation of the power system is dynamic. The occurrence of contingencies can develop at any time. With this, it is not possible to quantify the acceptable level of compliance. Therefore, the SDT has implemented a binary approach to the VSL. The SDT believes this approach is conducive to encouraging the appropriate behavior.</p>		
Gainesville Regional Utilities	No	
NERC Standards Review Subcommittee	No	
Bonneville Power Administration	Yes	
Duke Energy	Yes	
FirstEnergy	Yes	
Independent Electricity System Operator	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 8 Comment
Long Island Power Authority	Yes	
NIPSCO	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
NERC PCGC		No opinion

9. Do you agree with the proposed Implementation Plan for this standard? If not, please explain in the comment area.

Summary Consideration: A few commenters did not agree with the six month window for compliance with the standard. The SDT explained that they believed that due to lack of negative comments received the industry was in support of our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental authority acceptance.

A few of the commenters appeared to be confusing PER-003 with PER-005. The SDT explained that PER-005 addressed training and was not to be confused with this standard which addresses certification.

Organization	Yes or No	Question 9 Comment
Platte River Power Authority Operations Group	No	Demonstration of minimum competency and maintaining certification for system operators is covered under PER-005-1 which has been approved by NERC and is awaiting regulatory approval. PER-005-1 has a 24 month implementation plan and we believe that without the suggested wording changes in questions 3, 4 and 5 the implementation of this standard should not take effect until PER-005-1 is effective.
<p>Response: PER-005 addresses training and is not to be confused with this standard which addresses certification.</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental acceptance.</p>		
Hydro-Québec TransEnergie (HQT)	No	If all control room operators need to be certified whatever their functions, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC certified. It should be only those that are primarily responsible, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.(i.e. give directives).
<p>Response: The requirements, measure and VSLs in the standard were all revised to clarify that only those System Operators who are in Real-time operating positions performing reliability-related tasks need to have the associated NERC certification.</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC or other governmental acceptance.</p>		
Northeast Power Coordinating Council	No	If all control room operators need to be certified, the implementation plan needs to be at least 2 years to allow time to negotiate with unions, free up operators for the initial certification training and give them time to take and pass the test. The standard as written states in the VSL that all control room operators need to be NERC

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 9 Comment
		certified. It should be only those that are primarily responsible (i.e. give directives).
<p>Response: The requirements, measure and VSLs in the standard were all revised to clarify that only those System Operators who are in Real-time operating positions performing reliability-related tasks need to have the associated NERC certification.</p> <p>The SDT has modified the effective date to allow entities additional time to become compliant. The effective date has been changed to 12 months after FERC acceptance.</p>		
Brookfield Renewable Power Inc	No	It is too quick to implement plan.
<p>Response: The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.</p>		
NERC PGC	No	PCGC feels it is unclear as to what the full ramifications this standard may have on the certification process. A full study will be needed if this standard does cause changes to the certification process, and therefore could drastically affect the implementation plan.
<p>Response: This standard supports the certification process by requiring that entities use the process, but there is nothing in this standard that should cause a change to the certification process.</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.</p>		
Long Island Power Authority	No	The implementation Plan allows 6 to 9 months after approval for a Registered Entity to obtain certification for System Operators. LIPA is utilizing this comment to remind NERC to have the facilities to provide certification to those System Operators in a timely manner.
<p>Response: The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.</p>		
American Transmission Company	Yes	ATC does agree with the proposed effective date if the evidence to demonstrate compliance is limited to showing that our System Operators have a valid NERC Certificate.
<p>Response: The SDT believes that the responsible entities need to have evidence that shows not only that all System Operators have a valid NERC Certificate (M1.3) – but also have evidence in M1.1, M1.2, and M1.4. .</p> <p>The SDT believes that due to lack of negative comments received the industry is in support our original timeline. However, the SDT modified the</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 9 Comment
timeline to respond to some industry concerns. The effective date has been changed to 12 months after FERC acceptance.		
Alberta Electric System Operator	Yes	
American Electric Power (AEP)	Yes	
BCTC	Yes	
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	
Gainesville Regional Utilities	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
Nebraska Public Power District	Yes	
NERC Standards Review Subcommittee	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 9 Comment
NIPSCO	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
SERC Standards Review Group	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	
Manitoba Hydro		As long as the comments for standard are reviewed and standard resubmitted for review.
<p>Response: The SDT has modified the proposed standard and the standard will be posted for an additional comment period.</p>		

10. In In FERC Order 693 the Commission directed the ERO to consider “grandfathering” of system operators. The SDT has strongly considered grandfathering and does not feel that it should be allowed within this standard. The major factors that the SDT based its decision to not allow for grandfathering are as follows:

Do you agree with the proposed concept that “grandfathering” not be allowed? If not, please explain in the comment area.

Summary Consideration: A few of the commenters disagreed with the SDT and felt that “grandfathering” of System Operators should be allowed. The SDT explained that it believes that due to the lack of negative comments received the industry is in support of not allowing grandfathering. The SDT believes that an experienced operator should have the knowledge level to pass an exam as demonstrated by the SDT’s research shown in the comment form:

System Operator Passing Rates			
Operators that took a NERC Certification Exam	Operators that successfully passed a NERC Certification Exam	Operators that required more than one attempt to pass a NERC Certification Exam	Operator with previous experience operating the BES unable to pass a NERC Certification Exam
200	196	14	0

In addition, passing a certification exam is the only way NERC can document that the individual at least had the minimum competency level necessary.

One commenter stated that there were labor issues that would need to be settled. The SDT does not have any evidence that this is a widespread industry issue and the timeline for implementing this standard. Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.

In addition, the implementation plan has been lengthened (from six months to twelve months) and should allow time to address these issues.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
South Carolina Electric and Gas	No	Grandfathering should be allowed under this standard. If an individual has been performing their job for years as a system operator, We don't believe taking a certification exam will make them any more competent than they were prior to the exam. We don't believe there will be any benefits in terms of reliability of the BES or knowledge level. Operators that have been performing a system operator job for years obviously have a "minimum" knowledge level and forcing them to take and pass an exam would provide little or no benefit. We would agree to phasing out the "grandfathering" over a period of years, however we feel that the funds needed for this training and certification can be better utilized elsewhere.
<p>Response: The SDT believes that an experienced operator should have the knowledge level to pass an exam as demonstrated by the SDT's research shown in the comment form. Also, passing a certification exam is the only way NERC can document that the individual at least has the minimum competency level necessary.</p> <p>The SDT also believes that due to the lack of negative comments received the industry is in support not allowing grandfathering.</p>		
Brookfield Renewable Power Inc	No	I believe the standard to which our operators were trained was to the same level as the HQ operation staff.
<p>Response: The SDT feels that enough information was not provided to be able to respond to your comment.</p>		
E.ON U.S. LLC	No	If the proposed no "grandfathering" applies only to individuals pursuing initial certification then the approach seems appropriate. However, individuals seeking re-certification via the CEH process should not also be subject to overall/comprehensive certification exams. The re-certification process requires exams to earn CEH credits. This should suffice
<p>Response: The SDT believes that due to the lack of negative comments received the industry is in support not allowing. Grandfathering was proposed, as you suggest, only for the initial certification.</p> <p>The topic of certification renewal is outside the scope of the industry approved SAR on which this standard is based, and is not being considered within this standard. This standard does, however, require System Operators to "maintain" their certification – and the CEH process is the mechanism in place for maintenance of certifications.</p>		
NIPSCO	No	<p>We generally agree with sections B & D above.</p> <p>In A. we disagree with the last sentence: "Passing a certification examination is NERC's only available method to verify the minimum knowledge level of a System Operator". PER-005 requires that operators be trained in what they do. Through audits, spot checks and self certification compliance to this will be reviewed by the regions and NERC.</p> <p>In Section C. We disagree with the sentence: "Overall labor relations issues that arose due to the NERC</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
		<p>System Operator Certification requirements have, for the most part, already been settled.” This is still a major issue that has not yet been resolved.</p> <p>I think it’s interesting to note that the word “competency” does not appear in the above items A-D however “knowledge” is used numerous times. Should “knowledge” be used in the standard in place of competency ?</p>
<p>Response: The SDT thanks you for your agreement on B & D.</p> <p>As for Item A the SDT pointed to the certification as the only available method for NERC to ensure minimum knowledge. We should have stated that the passing a certification examination is NERC’s only available method to verify the initial minimum competency level of a system operator. In addition, generally grandfathering only applies to the initial process.</p> <p>With regards to Section C the SDT does not have evidence that this is a widespread industry problem. However, the timeline for implementing this standard has been adjusted based on comments received.</p> <p>The SDT would like to thank you for pointing out where the term knowledge was used in place of competency. Competency is the correct word for use in this standard. While the original Certification exams focused solely on recall-type questions, as the exams have evolved they have become more complex and now include fewer “recall” type questions and more “application” and “assessment” type questions where the candidate must demonstrate the ability to apply knowledge to a set of scenarios, which is testing competencies.</p> <p>The SDT believes that due to the lack of negative comments received the industry is in support of not allowing grandfathering.</p>		
Gainesville Regional Utilities	Yes	<p>At this juncture I agree since to operate a system the certification that came about was "required" and all System Operators took the tests and received their certification in their respective areas. I beleve at the time some individuals could have been grandfathered in. Not anymore, due to no apparent reason.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment.</p>		
American Transmission Company	Yes	<p>ATC agrees that grandfathering should not be allowed as a replacement for a valid NERC Certification.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment.</p>		
City of Tallahassee (TAL)	Yes	<p>However, paragraph B is not entirely correct. When Version 0 standards were adopted, we had three senior operators retire after they were unsuccessful in completing NERC Certification.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. The SDT was not implying that this couldn’t happen, only that our survey did not support your findings.</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
NERC Standards Review Subcommittee	Yes	The MRO NSRS agrees that grandfathering should not be allowed as a replacement for a valid NERC certification.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
Hydro-Québec TransÉnergie (HQT)	Yes	The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue as it relates to reliability. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing any FERC Orders.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
Northeast Power Coordinating Council	Yes	The SDT's has decided on the proper disposition of "grandfathering". It is important for SDTs to take and obtain support for what they feel are the right ways of addressing an issue. After the SDT reviewed and balanced the "grandfathering" considerations, the SDT opted not to include those provisions in the draft standard, a decision we support. The same methodical and balanced approach should be used when addressing FERC Orders.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
ISO New England Inc.	Yes	We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.
Response: The SDT acknowledges your affirmative response and clarifying comment.		
ISO RTO Council Standards Review Committee	Yes	<p>We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.</p> <p>We would like to comment on the Passing Rates - a better sample of data should have been obtained. This data reflects a 2% failure rate. Considering normal distribution, the data presented reflects either that statistical analysis was inadequate for the sample or the cutoff score for the exam may need to be changed.</p>
Response: The SDT acknowledges your affirmative response and clarifying comment.		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
The SDT realizes that the sample was insufficient for a representative accounting. The SDT was limited in its access to data.		
Alberta Electric System Operator	Yes	
American Electric Power (AEP)	Yes	
BCTC	Yes	
Bonneville Power Administration	Yes	
Consumers Energy Company	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
ERCOT ISO	Yes	
FirstEnergy	Yes	
Georgia System Operations Corporation	Yes	
Independent Electricity System Operator	Yes	
IPCo	Yes	
Long Island Power Authority	Yes	
Manitoba Hydro	Yes	
Midwest ISO Stakeholder Standards Collaborators	Yes	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 10 Comment
Nebraska Public Power District	Yes	
NERC PCGC	Yes	
Pacific Gas and Electric Company	Yes	
PacifiCorp	Yes	
Pepco Holdings, Inc - Affiliates	Yes	
Platte River Power Authority Operations Group	Yes	
SERC Standards Review Group	Yes	
Southern Company Transmission	Yes	
Transmission and Reliability (TRO), TVA	Yes	
US Bureau of Reclamation	Yes	
WECC Operations Training Subcommittee	Yes	
Xcel Energy	Yes	

11. In FERC Order 693 the Commission directed the ERO to include the minimum competencies that must be demonstrated to become and remain a certified system operator. The SDT has identified topical areas for which minimum competency must be validated through the certification process.

Do you agree with the method the SDT has used to meet the FERC directive? If not, please explain in the comment area.

Summary Consideration: Some commenters did not feel that minimum competencies should be included within a standard and that including them would be a violation of the PCGC charter. The SDT explained that it was responding to FERC Order 693 which contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The SDT further explained that it did not have sufficient information concerning the comment about “violation of Personnel Certification Governance Committee (PCGC) Charter” to satisfactorily address the issue.

Some commenters questioned how “minimum competency” would be verified. The measure requires verification by obtaining and maintaining a NERC Certificate.

A few commenters tried to provide other means of demonstrating minimum competency rather than including them within a Standard. The methods suggested by commenters did not identify an equally effective and efficient alternative to that proposed by the SDT.

A few commenters also expressed a desire for a standard for the ERO to guarantee competency. The development of a standard applying to the ERO is outside the scope of the industry approved SAR - if stakeholders feel a need for the development of such a standard, they can submit a SAR through the Standards Development Process.

A couple of commenters felt that the functional entity had no responsibility or recourse for the design of the certification process and therefore should not be held accountable for anything they could not control. The certification program is under the governance of the PCGC which is composed of representatives from the functional entities. The STD further explained that the actual exam questions were written by the Exam Working Group which is also composed of representatives from the functional entities.

Organization	Yes or No	Question 11 Comment
FirstEnergy	No	Although we agree that the SDT has done everything they can to meet the FERC directive, we do not agree that minimum competencies must be spelled out in the standard since obtaining a NERC Certificate already proves you demonstrate the minimum competencies. Please refer to our comments in Questions 3, 4, and 5.
Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
<p>Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p>		
Gainesville Regional Utilities	No	<p>I can't agree as to how specifically addressed competencies should be addressed. If a system operator can perform the necessary functions to keep s specific company reliable, how are these proposed competencies going to be investigated as to what depth of "competency? Who's decision will that be, The Entity, NERC, FERC, IEEE? Clarification may be in order</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides verification of an operator’s minimum competency. The “Areas of competency” referenced in the standard were extracted from the NERC System Operator Certification Program and serve as the basis for the certification exams. The competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
American Electric Power (AEP)	No	<p>In brief, while AEP fully supports the FERC directive to enhance the certification process to ensure demonstrated competency, AEP believes that the competencies be addressed in standards PER-002 for qualifications and PER-005 for system training requirements, and in the NERC System Operator Certification Program Manual.Please reference the comments provided in Question 1 for the basis for this belief.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p>		
Nebraska Public Power District	No	<p>In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and Å§ 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that:</p> <p>(1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and</p> <p>(2) identifies the minimum competencies operating personnel must demonstrate to be certified.</p> <p>FERC has not stated that competencies must be a NERC Standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC Certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program adjust competencies as required to meet changing demands without the time needed to go through the standards development process.We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
		SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies.
<p>Response: We disagree that the FERC directive did not mandate the addition of minimum competencies. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
MRO NERC Standards Review Subcommittee	No	<p>In FERC Order 693, dated 16 March 2007, the Commission approves Reliability Standard PER-003-0. In addition, pursuant to section 215(d)(5) of the FPA and Â§ 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to PER-003-0 through the Reliability Standards development process that: (1) specifies the minimum competencies that must be demonstrated to become and remain a certified operator and (2) identifies the minimum competencies operating personnel must demonstrate to be certified .FERC has not stated that competencies must be a NERC standard but have minimum competencies that must be demonstrated to become and maintain a certified operator. The NERC System Operator Certification Program has processes in place for ensuring that minimum competencies are current in order to obtain a NERC certificate. The maintenance of minimum competencies are within the NERC SOCCED program. This will allow the NERC System Operator Certification Program to adjust competencies as required to meet changing demands without the time needed to go through the standards development process.We feel the FERC directive is being met in the NERC System Operator Certification Program process and we ask the SDT to eliminate all references to competencies in this standard as proposed so to reduce confusion and redundancies.</p>
<p>Response: We disagree that the FERC directive did not mandate the addition of minimum competencies. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
Brookfield Renewable Power Inc	No	It does not recognize other training

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The topic of additional training is covered in PER-005.</p>		
Pepco Holdings, Inc - Affiliates	No	No, if the language change is not adopted. Yes, provided the changes to the language in the requirements and the measures statements is adopted as we proposed.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Entergy Services	No	Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator’s skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Agree – however the NERC Certification exams do provide confirmation of a minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” that are applicable on a continent-wide basis and those competencies were identified by administering a continent-wide job and task analysis.</p>		
SERC Standards Review Group	No	Our group feels that competency is NOT demonstrated simply by passing an exam and accumulating the required number of continuing education hours to maintain certification. Competency is developed by honing a System Operator’s skills in performing the company-specific tasks that will enhance the reliability of the Bulk Electric System. System Operator performance and competency is best evaluated by the entity itself. The national certification program only ensures a minimum level of knowledge required to develop competency through experience in operating the system.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the</p>		

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Organization	Yes or No	Question 11 Comment
<p>Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Agree – however the NERC Certification exams do provide confirmation of a minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” that are applicable on a continent-wide basis and those competencies were identified by administering a continent-wide job and task analysis.</p>		
Independent Electricity System Operator	No	Rather than state FERC’s requirement as an obligation of the individual operator to demonstrate minimum competency in each topical area, the requirement should be stated as an obligation of NERC to ensure the certification exams reflect the stated topical areas. See our responses to Q3, Q4 and Q5.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>Your comment places a requirement on the ERO which is not plausible. However, the SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Xcel Energy	No	Recommend development of a standard that applies to the ERO on what the certification process must demonstrate and contain. The areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.
<p>Response: The development of a standard applying to the ERO is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>		
NERC PGC	No	Section 600 of the Rules of Procedure of the North American Electric Reliability Corporation states “the System Operator Certification Program provides the mechanism to ensure system operators are provided the education and training necessary to obtain the essential knowledge and skills and are therefore qualified to operate the bulk electric system. NERC, as the ERO, will ensure skilled, trained, and qualified system operators through the System Operator Certification Program. NERC shall develop and maintain a personnel certification program to evaluate individuals and to issue credentials to individuals who demonstrate the required level of competence.”4. The personnel certification program governing body shall have control over

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
		<p>the matters related to the personnel certification and recertification programs listed below, without being subject to approval by any other body.4.1 Policies and procedures, including eligibility requirements and application processing.4.2 Requirements for personnel certification, maintaining certification, and recertification.4.3 Examination content, development, and administration.4.4 Examination cut score.This standard should only ensure that reliability related tasks are being performed by NERC Certified System Operators.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT thanks you for your comment. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. Your comments do not appear to have identified an equally effective and efficient alternative method other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
Georgia System Operations Corporation	No	<p>The areas of competency are not needed in the standard since they are already in the NERC certification program. The standard should refer to the System Operator Certification program and not list the areas of competency.The NERC System Operator Certification Program states that it “awards certification credentials to those individuals who demonstrate that they have attained sufficient knowledge relating to NERC reliability standards and the basic principles of bulk power system operations by passing one of four specialty examinations.”The System Operator Certification mission is to “ensure that employers have a workforce of system operators that meet minimum qualifications.”</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
IPCo	No	<p>the Competecies should not be part of this standard.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
Consumers Energy Company	No	<p>The functional entities have no responsibility and no recourse to the design of the certification process. They cannot determine what is demonstrated by an operator passing a certification examination. They cannot be</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
		held responsible for anything they cannot control.
<p>Response: The governance of the certification program is done by the PCGC which is composed of representatives from the functional entities. The actual exam questions are written by the Exam Working Group which is also composed of representatives from the functional entities. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Long Island Power Authority	No	<p>The term "minimum competencies" will be difficult to demonstrate compliance to. The term is very open to conflicting interpretation.</p> <p>A possible alternative is reference to the System Operator Certification Program manual. The demonstration and measurement of System Operator competencies is better suited to the Standard PER-005, and is another reason why the requirement should be limited to the possession of a current and valid NERC certificate.</p>
<p>Response: The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>		
Alberta Electric System Operator	No	There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method</p>		

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Yes or No	Question 11 Comment
<p>other than that proposed by the SDT to address the FERC Order 693 directive.</p>		
ERCOT ISO	No	<p>There is an established process in place which defines the minimum competencies for NERC Certification. This meets the Commission’s directive in FERC Order 693.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The SDT thanks you for your comment. If the SDT does not meet the directive as proposed, the SDT must provide an equally efficient and effective method of achieving the intent of that directive. Your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive.</p>		
NIPSCO	No	<p>These specific competencies should be covered in the new PER-005 Standard and not in the certification standard.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
BCTC	No	<p>This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.</p>
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”. There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
Pacific Gas and Electric	No	<p>This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System</p>

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Organization	Yes or No	Question 11 Comment
Company		Operators.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”. There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
WECC Operations Training Subcommittee	No	This is a violation of the PCGC Charter. There is an established process in place for NERC Certification. This standard should just ensure reliability related tasks are being performed by NERC Certified System Operators.
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”. There is nothing in this standard that is directing a change to the PCGC Charter or to the certification exams.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>		
E.ON U.S. LLC	No	Topical areas required to demonstrate minimum competencies should be (and are) addressed in the NERC certification process - they should not part of a requirement in a Reliability Standard
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
American Transmission Company	No	We believe that the inclusion of the minimum competency list is unnecessary because the NERC System Operator Certificate program already addresses these competencies. The SDT should work with the NERC System Operator Certification group to develop a summary of the NERC Certification program in order to address FERC's concern.

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Organization	Yes or No	Question 11 Comment
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>		
<p>Midwest ISO Stakeholder Standards Collaborators</p>	<p>No</p>	<p>While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. What is really needed is a standard that applies to the ERO on what the certification process must demonstrate and contain. These areas of competency in this standard do not compel the ERO to guarantee that their certification process ensures that a certified system operator meets these minimum competency levels.</p>
<p>Response: With regards to your comment concerning the development of a standard applying to the ERO, this is outside the scope of industry approved SAR. If you feel there is the need for a new standard you can submit a SAR through the Standards Development Process.</p> <p>The SDT thanks you for your comment. However, your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive. The proposed standard requires that certain System Operators pass certain NERC exams. These NERC Certification exams do test for the existence of a minimum set of competencies. A System Operator who passes the applicable test has demonstrated that he or she has that minimum set of competencies. While the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p>		
<p>Transmission and Reliability (TRO), TVA</p>	<p>No</p>	<p>While adding areas of competency addresses FERC directives, it does not add any value to the standard by furthering reliability. By including these competencies in the standard as sub-requirements it implies the entity is responsible for additional demonstration of competency beyond that of operator certification, which has been identified as the only measure.</p>
<p>Response: The SDT thanks you for your comment. However, your comments do not appear to have identified an equally effective and efficient alternative method other than that chosen by the SDT to address the FERC Order 693 directive.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC</p>		

Organization	Yes or No	Question 11 Comment
<p>certificate number with expiration date”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>		
<p>Hydro-Québec TransEnergie (HQT)</p>	<p>No</p>	<p>With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should “drill down” to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved.</p> <p>Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>The SDT also believes that identifying what constitutes an approved course for continuing education is outside of the industry approved SAR for this project. The SDT feels that this standard deals with the topic of who needs to be certified and what certification is needed for a particular position.</p> <p>The SDT believes that these areas of competency existed prior to 2007 within the certification program.</p> <p>With regard to your comment concerning a requirement to participate in continuing education or a training program the SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		

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Organization	Yes or No	Question 11 Comment
Northeast Power Coordinating Council	No	<p>With the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in different ways to address different situations (i.e. using differing tools and systems), depending on the organizational structures. The initial exam requirement to become certified is directed at conceptual understanding of power system operations. Subsequent on-going training requirements should “drill down” to more area-specific competencies. Mention must be made of what constitutes an approved course for continuing education, even if it is just a statement that any continuing education courses must be NERC approved. Competency Areas identified in the requirements are tied to the 2007 Version of the NERC Certification Exams. Many operators were certified based on an exam prior to 2007 which did not have the competency areas identified in the requirements of this proposed standard. Once an operator is certified, his competency/proficiency is supposed to be maintained by participation in a Continuing Education Program or at a minimum the training required by PER-002 Requirement 4. There is no mention of a requirement to participate in continuing education or a training program that will maintain competency/proficiency.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>The SDT also believes that identifying what constitutes an approved course for continuing education is outside of the industry approved SAR for this project. The SDT feels that this standard deals with the topic of who needs to be certified and what certification is needed for a particular position.</p> <p>The SDT believes that these areas of competency existed prior to 2007 within the certification program.</p> <p>With regard to your comment concerning a requirement to participate in continuing education or a training program the SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p>		
City of Tallahassee (TAL)	Yes	<p>Although this could have been better addressed through the NERC System Operator Certification Program and that process. The performance standard (PER-003) could have remained the Version 0, and only required that they be certified at the appropriate level.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum</p>		

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Organization	Yes or No	Question 11 Comment
<p>competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p>		
<p>ISO RTO Council Standards Review Committee</p>	<p>Yes</p>	<p>The competencies should be addressed in the development of the certification exam and NOT in this standard. This standard should simply require the operators to obtain the requisite certification. We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (e.g., using differing tools and systems), depending on the organizational structures.</p> <p>It is our understanding that the initial exam requirement is intended to assess conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to take the same approach.</p>
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p>		
<p>ISO New England Inc.</p>	<p>Yes</p>	<p>We believe that, given the diversity of operational structures throughout the four Interconnections, it would not be a prudent approach to identify minimum competencies, as these proficiencies may be demonstrated in variable ways (i.e. using differing tools and systems), depending on the organizational structures. It is our understanding that the initial exam requirement is intended to conceptual understanding of power system operations. We equate this proposed method (as contained in the existing draft version 1) to be similar to taking a driving exam to prove that you, indeed, know the rules of the road. This does not, however, translate into all driving situations well. Such is the NERC Certification exam versus on-going training requirements. We applaud the SDT members for not feeling compelled to simply adopt FERC Order 693 comments and for proactively evaluating their impact on the Reliability of power system operations. We encourage other SDT to</p>

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Organization	Yes or No	Question 11 Comment
		take the same approach.
<p>Response: The SDT acknowledges your affirmative response and clarifying comment. FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” and “assessment” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p>		
Bonneville Power Administration	Yes	
Duke Energy	Yes	
Manitoba Hydro	Yes	
PacifiCorp	Yes	
Platte River Power Authority Operations Group	Yes	
South Carolina Electric and Gas	Yes	
Southern Company Transmission	Yes	
US Bureau of Reclamation	Yes	

12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict in the comments section.

Summary Consideration: A couple of the commenters felt there was a conflict in the use of the term System Operator. The SDT explained that they used the term "System Operator" because it was a defined term which helped to narrow who should be included. The SDT narrowed the purpose to only include the Reliability Coordinator, Transmission Operator and Balancing Authority since this standard is not applicable to Generator Operators and Generator Operators are included in the definition of "System Operator".

A couple of commenters also stated that they felt there was a conflict between FERC Order 693 and the NERC Rules of Procedure Section 600 as well as the Personnel Certification Governance Committee (PCGC) Charter. The SDT does not have sufficient information to address this suggested conflict. The standard does not mandate any changes to the PCGC Charter or to the process used to develop or administer the certification exams.

Organization	Question 12 Comment
Platte River Power Authority Operations Group	We believe the standard as written ...shall staff its real-time operating positions with System Operators who have demonstrated minimum competency in the areas listed could infer that registered entities be in compliance with PER-005-1 when in reality the intent of the Standard is to assure registered entities have staffed real-time operating positions with System Operators that have an appropriate, valid NERC certificate.
Response: The SDT has modified the body of the requirement which now reads "Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".	
NERC PCGC	Yes. There is a conflict between FERC Order 693 and the ROP, section 600, which were approved post FERC Order 693. See comment for #11
Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states ".....the Commission directs the ERO to develop these modifications to the Reliability Standard". With regards to your comment concerning a conflict between FERC Order 693 and the Rules of Procedure Section 600, this is beyond the scope of this project.	
Entergy Services	A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 12 Comment
	System Operator certification and should therefore be removed from the System Operator definition in the Glossary.
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the entities registered as Reliability Coordinators, Transmission Operators, and Balancing Authorities since this standard is not applicable to entities registered as Generator Operators, and thus is not applicable to those System Operators who work solely for Generator Operators.</p>	
SERC Standards Review Group	A conflict exists with the fact that the definition of System Operator in the Glossary of Terms Used in Reliability Standards includes individuals who staff Generator Operator control centers. We do not feel that such individuals should require System Operator certification and should therefore be removed from the System Operator definition in the Glossary.
<p>Response: The SDT used the term “System Operator” because it is a defined term which helps to narrow who should be included. However, the SDT further narrowed the purpose to only include the entities registered as Reliability Coordinators, Transmission Operators, and Balancing Authorities since this standard is not applicable to entities registered as Generator Operators , and thus is not applicable to those System Operators who work solely for Generator Operators.</p>	
IPCo	conflicts with PCGC charter
<p>Response: FERC Order 693 contained a directive to include minimum competencies within this standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT does not have sufficient information from you comment to address “violation of PCGC Charter”.</p>	
Long Island Power Authority	LIPA believes the proposed Standard "shall staff its real-time operating positions with System operators who have demonstrated minimum competency in the areas listed" could infer that Registered Entities be in compliance with PER-005-1 prior to the effective date of PER-005-1, when the intent of PER-003 is to assure that the Registered Entity has staffed ots real-time operating positions with System Operators possessing a valid Nerc Certificate.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>	
American Electric Power (AEP)	No known regulatory conflicts.
South Carolina Electric and Gas	Not aware of any.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 12 Comment
Independent Electricity System Operator	We are not aware of any conflicts.
Duke Energy	None
ISO RTO Council Standards Review Committee	None
NIPSCO	None
PacifiCorp	None
Northeast Power Coordinating Council	None.
Transmission and Reliability (TRO), TVA	None.
Consumers Energy Company	No
Hydro-Québec TransEnergie (HQT)	No
ISO New England Inc.	No.
NERC Standards Review Subcommittee	N/A
Georgia System Operations Corporation	N/C

13. In Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Summary Consideration: Some of the commenters stated that there should be an exception within the proposed standard to allow for trainees. The SDT explained that the individual responsible for the operation of the BES must be NERC certified and that this proposed standard was not allowing for exceptions.

Some of the commenters re-stated their belief that minimum competencies should not be a part of this standard. The SDT is responding to FERC Order 693 which contains a directive to include minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.

Some additional commenters re-stated their question as to how minimum competency would be verified. The requirements were modified to clarify that competence is demonstrated “by” obtaining and maintaining a NERC Certificate.

One commenter questioned whether the ISO/RE could impose stricter standards than those imposed by NERC. The ISO/RE had the authority to develop and implement qualification and/or certification processes in addition to the NERC certification program. However, the Compliance Enforcement Authority is only responsible for enforcing compliance with standards that have been developed and approved either with NERC’s Standards Development Procedure or through a NERC-approved Regional Standards Development Procedure.

Organization	Question 13 Comment
Georgia System Operations Corporation	A section on training of operators that was in the old standard still should be addressed in the updated standard. If not, an interpretation of this standard would not allow a trainee, working on achieving his NERC certification, to gain operating experience working under the direct supervision of a certified system operator.
<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>	
ERCOT ISO	ERCOT ISO believes that minimum competencies do not belong in this standard. The terms “competent” and “competencies” are not interchangeable. Competent is a measure of a person’s ability to perform. Competencies are, generally speaking, the knowledge and skills a person must have in order to develop or achieve competence. Some

Organization	Question 13 Comment
	<p>competencies (a minimum body of knowledge) can be demonstrated by the current NERC certification process. Other competencies that are not demonstrated by the current NERC certification process are defined and evaluated by the individual Registered Entities. When combined with the knowledge competencies, the Registered Entity then verifies that the individual is competent to perform its assigned tasks. Each ISO or RE should be allowed to establish qualification criteria for operating within its region. Furthermore, there is more flexibility within the existing process by going through the Personnel Certification Governance Committee for changing minimum competencies than there would be to change minimum competencies if they were added into the NERC standards.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”.</p> <p>The SDT believes that the ISO/RE has the authority to develop and implement qualification and/or certification processes in addition to the NERC certification program.</p> <p>The proposed standard only identifies the topical areas where competence must be demonstrated through certification – the standard does not identify the detailed competencies.</p>	
<p>NERC PCGC</p>	<p>It is suggested that we leave the competencies with PER-005 and leave them out of this standard.</p>
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p>	
<p>Long Island Power Authority</p>	<p>LIPA suggests consideration of a requirement to require each RC/TOP/BA to have at least one position staffed with a System Operator possessing a valid NERC Certificate, 24 hours a day, seven days a week, responsible for the control of the bES munder R1/R2/R3. This requirement will eliminate the ambiguity of the definition of real-time operating positions responsiblefor the control of the BES.</p> <p>2.Consideration for a requirement that clearly states the requirement of possessing a valid NERC certificate before a System Operator can fill a real-time operating position responsible for the control of the BES.</p> <p>It is our opinion that the phrase "demonstrated minimum competency in the areas listed to obtain and maintain a valid NERC Reliability Operator certificate" can be interpreted as not requiring the possession of a valid NERC Certificate prior to staffing a real-time operating position. For example, minimum competency (which is undefined) can be demonstrated by a test given by the Registered Entity to a System Operator prior to the System Operator completing the NERC Certification process. If the pupose of this Standard is to demonstrate competency via the NERC certification process then the requirements should clearly state so.</p>

Organization	Question 13 Comment
	<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>
<p>Independent Electricity System Operator</p>	<p>PER-003-0 (Version 0) M1.1 provided for or stated that it was permissible for an operator-in-training without proper NERC certification to perform reliability related tasks while under direct and continuous supervision. PER-003-1 is now silent in this regard. Does this mean that it is still permissible for O-I-T’s or other uncertified operations staff to perform these tasks under direct and continuous supervision and that it was deemed unnecessary to specifically mention this fact? To avoid compliance uncertainty in the future, we recommend reinstating the wording of PER-003-0 M1.1 or equivalent.</p>
	<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any “trainee” should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads “Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>NIPSCO</p>	<p>R1.2 from the existing PER-003-0 “Positions directly responsible for complying with NERC standards” was removed; the word “both” in R1 tied this to the real time operations. This is a key change to the standard that I think should be questioned and noted. In determining who should be NERC certified some entities can presently exclude people who are not familiar at all with complying to NERC Standards however they may be operating the BES.</p> <p>Another issue that came up during a proposed interpretation discussion a few years ago was that if a real time operator can act “independently”, like shed load without asking a supervisor, then that person should be certified. This excluded switchmen and local dispatch center personnel who would ask for direction from a certified operator before acting on the BES. I think both these issues should be addressed or at least brought to the attention of people commenting.</p>
	<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The industry has stated that the V0 standard was ambiguous. The standard has been modified to provide clarity and remove any ambiguity. By including the defined term, “System Operator” in the requirement, the SDT has already provided clarity with respect to which personnel need a</p>

Organization	Question 13 Comment
	<p>NERC certificate. The definition of System Operator is: An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, and Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time. Thus, by definition, a switch person is not a System Operator - and a person working an operating position in a control room for an entity that is not registered as a Balancing Authority, Transmission Operator, Generator Operator, or Reliability Coordinator is not required to have a NERC certificate. Note that through other exclusions in the applicability section of the standard, personnel working in control rooms for an entity registered solely as a Generator Operator are not required to obtain a NERC certification.</p>
Duke Energy	<p>The "Reliability Operator" certificate is for Reliability Coordination. The name of the certificate should be made consistent with the task.</p>
<p>Response: The SDT thanks you for your comment. However, your comment suggests something that is outside the scope of the industry approved SAR.</p>	
Xcel Energy	<p>The current version of PER-003 addresses the allowability of non-NERC certified individuals (trainees) performing tasks of an RC, BA, or TOP under direct supervision of a certified individual and we believe there should be a requirement that explicitly allows that to occur. The current version of PER-003 addresses the allowable time that non-NERC certified personnel may staff positions when transitioning to an alternate control center. We believe this should be addressed in the requirements and also be consistent with the allowable transition time specified in EOP-008.</p>
<p>Response: The proposed standard does not allow for exceptions. The SDT believes that the individual responsible for the operation of the BES must be certified. The SDT does not believe that any "trainee" should be left in control of the BES. If an entity has a trainee in an applicable operating position, there must be a Certified System Operator on duty that is in control of the BES. The SDT has added a footnote to the standard to address this issue. The footnote reads "Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p> <p>The SDT believes that standards should not contain exceptions since including exceptions could allow entities to violate the standard during times that do not warrant straying from the intent of the requirement. The SDT further believes that if a violation were to occur during abnormal conditions, the audit group would take the situation under consideration and only issue a violation if the situation truly warranted such an action.</p>	
IPCo	<p>The PCGC issues the credentials for the Operator Certification, How Does the ERO audit the PCGC for NERC compliance for issuing the certificates?</p>
<p>Response: The SDT thanks you for your comment. However, your comment suggests something that is outside the scope of the industry approved SAR.</p>	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
FirstEnergy	The phrase "real-time" used in the standard should be capitalized (Real-time) since it is a NERC Glossary term.
<p>Response: The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p>	
Pacific Gas and Electric Company	The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard.
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operator’s minimum competency.</p>	
WECC Operations Training Subcommittee	The WECC OTS does not feel competencies belong in this standard. There is not a defined method to measure competencies associated with taking and passing an exam. No requirements should be included in the standard that do not have associated measures. The WECC OTS believes addressing competencies belongs in a training standard.
<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies. The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p> <p>The SDT believes that the measure requires verification by obtaining and maintaining a NERC Certificate which provides for verification of an operators minimum competency.</p>	
American Electric Power (AEP)	There are potential gaps and conflicting information in the NERC CE Program and System Operator Certification Program Manual with respect the demonstrated competencies and Appendix A for recognized training topics. As explained in Section 600 - Personnel Certification of the Rules of Procedure of the NERC, these gaps and conflicting information will need to be addressed by the PCGC. The PCGC, in coordination with the NERC Personnel Subcommittee, should continue to manage the demonstrated competency areas and measuring thereof going forward.

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
	PER-005-1 should be modified to identify the company-specific reliability-related tasks of the identified competency areas to be addressed with a systematic training approach.
<p>Response: The SDT thanks you for your comment. However, your comment suggests something that is outside the scope of the industry approved SAR. The SDT feels that any issues you have with the PS PCGC should be taken up with them.</p>	
American Transmission Company	This SDT should look at the new PER-005 standards as an additional source to show that the minimum competency list is being addressed.
<p>Response: The SDT is not sure as to the point you are trying to make. The SDT agrees that PER-005 would be helpful with regards to training.</p>	
ISO New England Inc.	We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion. We believe the Standard need to be clarified to make it more clear for the industry.
<p>Response: The SDT has modified the purpose statement which now reads “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”.</p> <p>The SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>	
ISO RTO Council Standards Review Committee	We believe the purpose of this Standard is to a) pass the correct test to obtain the certification; and b) identify the Areas of Competency for maintaining the certifications through the use of Continuing Education Hours (CEHs). However, we do not believe the Standard is written clearly enough so that the entire industry would interpret it in the same fashion. We believe the Standard needs to be clarified to make it more clear for the industry.
<p>Response: The SDT has modified the purpose statement which now reads “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification</p>	

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
	<p>Program process when filling a Real-time operating position responsible for the control of the Bulk Electric System”.</p> <p>The SDT believes that a System Operator should maintain their certification by the method that the Personnel Certification Governance Committee (PCGC) deems appropriate, which is currently through earning Continuing Education Hours (CEHs). The SDT did not want to mandate a certain method.</p> <p>The SDT has modified the body of the requirement which now reads “Each (operating entity) shall staff its Real-time operating positions performing (operating entity) reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.</p> <p>The SDT modified Measure M1.3 to provide greater clarity. The measure now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date”.</p>
<p>Alberta Electric System Operator</p>	<p>We do not feel that competencies belong in this standard. Competencies are addressed in PER005 by requiring training programs to be developed based on the entity’s BES reliability-related task list. Since each entity is required to be compliant with the appropriate NERC Reliability standards, the task list will identify relevant competencies. From PER005 - “Purpose: To ensure that System Operators performing real-time, reliability-related tasks on the North American Bulk Electric System (BES) are competent to perform those reliability-related tasks. The competency of System Operators is critical to the reliability of the North American Bulk Electric System.”</p>
	<p>Response: FERC Order 693 contained a directive for including of minimum competencies within the standard. In Order 693 paragraph 1408 the Commission states “.....the Commission directs the ERO to develop these modifications to the Reliability Standard”. The drafting team met with FERC staff to ensure a clear understanding of the intent of this directive – and FERC staff confirmed that the expectation is that the standard will reference competencies.</p> <p>The minimum competencies assessed in the certification exams were identified and verified through the application of a job and task analysis that was administered on a continent-wide basis.</p>
<p>NERC Standards Review Subcommittee</p>	<p>N/A</p>
<p>Entergy Services</p>	<p>None not already stated above.</p>
<p>SERC Standards Review Group</p>	<p>None not already stated above.</p>
<p>Consumers Energy Company</p>	<p>None</p>
<p>PacifiCorp</p>	<p>None</p>

Consideration of Comments on Operating Personnel Credentials Standard (Project 2007-04)

Organization	Question 13 Comment
South Carolina Electric and Gas	None
Transmission and Reliability (TRO), TVA	None.

Unofficial Comment Form for Operating Personnel Credentials Standard Project 2007-04

Please **DO NOT** use this form. Please use the [electronic form](#) located at the link below to submit comments on the draft Operating Personnel Credentials standard. Comments must be submitted by **September 24, 2010**. If you have questions please contact **Darrel Richardson** at Darrel.Richardson@nerc.net or by telephone at 609-613-1848.

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Background Information:

The Operating Personnel Credentials standard is designed to ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator have demonstrated minimum competency through the NERC Certification Process when in an operating position responsible for control of the Bulk Electric System. This standard will replace standard PER-003-0 once it is approved by the appropriate entities. The focus of this standard is to provide greater clarity in who exactly needs to be certified and what certificate is needed to operate the Bulk Electric System for those System Operators who work for an entity registered as a Reliability Coordinator, Balancing Authority or Transmission Operator. The Standard Drafting Team has responded to comments on an initial draft of the standard and has modified the draft standard.

The Drafting Team would like to receive industry comments on this standard. Accordingly, we request that you include your comments on the electronic form and submit them by **September 24, 2010**.

Unofficial Comment Form — Operating Personnel Credentials Standard

1. The SDT has modified the Purpose statement of the draft standard. The Purpose statement now reads “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System”.

Do you agree that the modified Purpose statement provides greater clarity as to who is affected and how certification is to be accomplished? If not, please explain in the comment area.

Yes

No

Comments:

2. Although the industry as a whole did not request additional time for the implementation of this standard, the SDT responded to those entities that requested additional time. The SDT determined that there may be instances where existing certificate holders may need to obtain a different certificate, and, consequently, modified the effective date of the draft standard to be twelve months after regulatory approval/or BOT approval where there is no regulatory approval required.

Do you agree that this additional time is sufficient for all entities to comply with the standard? If not, please explain in the comment area.

Yes

No

Comments:

3. The SDT has modified the body of all three Requirements to provide additional clarity as to who is to be certified. The body of the Requirement(s) now reads:

“Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates:”.

Do you agree that this modification clearly states who is to be certified and clarifies that the obtaining and maintaining the certificate is how competence is demonstrated? If not, please explain in the comment area.

Yes

No

Comments:

4. The SDT has modified the Measure to better align with the Requirement(s). The Measure now reads “Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3):

M1.1 A list of Real-time operating positions.

M1.2 A list of System Operators assigned to its Real-time operating positions.

Unofficial Comment Form — Operating Personnel Credentials Standard

M 1.3 A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date.

M 1.4 Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

Do you agree that the Measure is now better aligned with the Requirement(s)? If not, please explain in the comment area.

Yes

No

Comments:

5. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Comments:

Implementation Plan for PER-003-1 — Operating Personnel Credentials Standard

Prerequisite Approvals

There are no other reliability standards or Standard Authorization Requests (SARs), in progress or approved, that must be implemented before this standard can be implemented.

Modified Standards

PER-003-0 should be retired when PER-003-1 becomes effective.

Compliance with Standards

Once this standard becomes effective, the responsible entities identified in the applicability section of the standard must comply with the requirements. These include:

- Reliability Coordinator
- Transmission Operator
- Balancing Authority

Proposed Effective Date

Compliance with PER-003-1 shall be implemented as follows:

- In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter, twelve months after Board of Trustees adoption.

Implementation Plan for PER-003-1 — Operating Personnel Credentials Standard

Prerequisite Approvals

There are no other reliability standards or Standard Authorization Requests (SARs), in progress or approved, that must be implemented before this standard can be implemented.

Modified Standards

PER-003-0 should be retired when PER-003-1 becomes effective.

Compliance with Standards

Once this standard becomes effective, the responsible entities identified in the applicability section of the standard must comply with the requirements. These include:

- Reliability Coordinator
- Transmission Operator
- Balancing Authority

Proposed Effective Date

Compliance with PER-003-1 shall be implemented as follows:

- In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter ~~twelve~~ six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter, ~~twelve~~ six months after Board of Trustees adoption.

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. The Standards Committee approved the SAR for posting on July 12, 2007.
2. The SAR was posted for industry comment from July 17, 2007 through August 15, 2007.
3. Reply comments and a revised SAR were posted for a second industry comment period from January 2, 2008 through January 31, 2008.
4. Standards Committee approved moving the project into the standards development phase on April 10, 2008.
5. The Standards Committee appointed the Standard Drafting Team on June 13, 2008.
6. The draft Standard was posted for Industry comment on October 21, 2009.
7. The SDT responded to comments received on April 30, 2010.

Proposed Action Plan and Description of Current Draft:

This is the second posting of the proposed standard.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Obtain the Standards Committee's approval to move the standard forward to balloting.	July, 2010
2. Post the standard and implementation plan for a 30-day pre-ballot review.	July, 2010
3. Conduct an initial ballot for ten days.	August, 2010
4. Respond to comments submitted with the initial ballot.	September, 2010
5. Conduct a recirculation ballot for ten days.	September, 2010
6. BOT adoption.	November, 2010

A. Introduction

1. **Title:** **Operating Personnel Credentials**
2. **Number:** **PER-003-1**
3. **Purpose:** To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System.
4. **Applicability:**
 - 4.1. Reliability Coordinator
 - 4.2. Transmission Operator
 - 4.3. Balancing Authority
5. **Effective Date:**
 - 5.1. In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after Board of Trustees adoption.

B. Requirements

- R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]
 - 1.1. Areas of Competency
 - 1.1.1. Resource and demand balancing
 - 1.1.2. Transmission operations
 - 1.1.3. Emergency preparedness and operations
 - 1.1.4. System operations
 - 1.1.5. Protection and control
 - 1.1.6. Voltage and reactive
 - 1.1.7. Interchange scheduling and coordination
 - 1.1.8. Interconnection reliability operations and coordination
- R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated

¹ Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

2.1. Areas of Competency

- 2.1.1. Transmission operations
- 2.1.2. Emergency preparedness and operations
- 2.1.3. System operations
- 2.1.4. Protection and control
- 2.1.5. Voltage and reactive

2.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator

R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

3.1. Areas of Competency

- 3.1.1. Resources and demand balancing
- 3.1.2. Emergency preparedness and operations
- 3.1.3. System operations
- 3.1.4. Interchange scheduling and coordination

3.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator

C. Measures

M1. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3):

M1.1 A list of Real-time operating positions.

M1.2 A list of System Operators assigned to its Real-time operating positions.

¹ Non-NERC certified personnel learning or observing the tasks of an operating position must be under the direct supervision of a NERC Certified System Operator at that operating position who has the sole responsibility for the performance of the reliability-related tasks.

M1.3 A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date.

M1.4 Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Authority

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

1.2. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.3. Data Retention

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall keep data or evidence to show compliance for three years or since its last compliance audit, whichever time frame is the greatest, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Reliability Coordinator, Transmission Operator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent records.

1.4. Additional Compliance Information

None.

2. Violation Severity Levels

R#	Lower VSL	Medium VSL	High VSL	Severe VSL
R1				The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R1.

Standard PER-003-1 — Operating Personnel Credentials Standard

R2				The Transmission Operator failed to staff each Real-time operating position performing Transmission Operator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R2, Part 2.2.
R3				The Balancing Authority failed to staff each Real-time operating position performing Balancing Authority reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R3, Part 3.2.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1		Complete revision under Project 2007-04	Revision

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. The Standards Committee approved the SAR for posting on July 12, 2007.
2. The SAR was posted for industry comment from July 17, 2007 through August 15, 2007.
3. Reply comments and a revised SAR were posted for a second industry comment period from January 2, 2008 through January 31, 2008.
4. Standards Committee approved moving the project into the standards development phase on April 10, 2008.
5. The Standards Committee appointed the Standard Drafting Team on June 13, 2008.
6. The draft Standard was posted for Industry comment on October 21, 2009.
7. The SDT responded to comments received on April 30, 2010.

Proposed Action Plan and Description of Current Draft:

This is the second posting of the proposed standard.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Obtain the Standards Committee’s approval to move the standard forward to balloting.	July, 2010
2. Post the standard and implementation plan for a 30-day pre-ballot review.	July, 2010
3. Conduct an initial ballot for ten days.	August, 2010
4. Respond to comments submitted with the initial ballot.	September, 2010
5. Conduct a recirculation ballot for ten days.	September, 2010
6. BOT adoption.	November, 2010

A. Introduction

1. **Title:** **Operating Personnel Credentials**
2. **Number:** **PER-003-1**
3. **Purpose:** To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority ~~or~~ and Transmission Operator ~~have~~ are certified ~~demonstrated competency~~ through the NERC System Operator Certification Program ~~Process~~ when filling a Rreal-time operating position responsible for control of the Bulk Electric System.
4. **Applicability:**
 - 4.1. Reliability Coordinator
 - 4.2. Transmission Operator
 - 4.3. Balancing Authority
5. **Effective Date:**
 - 5.1. In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter ~~twelve~~ six months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter ~~twelve~~ six months after Board of Trustees adoption.

B. Requirements

- R1. Each Reliability Coordinator shall staff its Rreal-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed ~~by~~ to obtaining and maintaining a valid NERC Reliability Operator certificate ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]
 - 1.1. Areas of Competency
 - 1.1.1. Resource and ~~Demand~~ demand ~~Balancing~~ balancing
 - 1.1.2. Transmission ~~Operations~~ operations
 - 1.1.3. Emergency ~~Preparedness~~ preparedness and ~~Operations~~ operations
 - 1.1.4. System ~~Operations~~ operations
 - 1.1.5. Protection and ~~Control~~ control
 - 1.1.6. Voltage and ~~Reactive~~ reactive
 - 1.1.7. Interchange ~~Scheduling~~ scheduling and ~~Coordination~~ coordination
 - 1.1.8. Interconnection ~~Reliability~~ reliability ~~Operations~~ operations and ~~Coordination~~ coordination
- R2. Each Transmission Operator shall staff its Rreal-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated

¹ Non-NERC certified personnel learning or observing the tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

minimum competency in the areas listed ~~by~~ obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

2.1. Areas of Competency

2.1.1. Transmission ~~Operations~~operations

2.1.2. Emergency ~~Preparedness~~preparedness and ~~Operations~~operations

2.1.3. System ~~Operations~~operations

2.1.4. Protection and ~~Control~~control

2.1.5. Voltage and ~~Reactive~~reactive

2.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator

R3. Each Balancing Authority shall staff its ~~R~~real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed ~~by~~ obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

3.1. Areas of Competency

3.1.1. Resources and ~~Demand~~demand ~~Balancing~~balancing

3.1.2. Emergency ~~Preparedness~~preparedness and ~~Operations~~operations

3.1.3. System ~~Operations~~operations

3.1.4. Interchange ~~Scheduling~~scheduling and ~~Coordination~~coordination

3.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator

C. Measures

M1. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its ~~R~~real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining~~that have the~~an appropriate, valid NERC certificate (R1, R2, R3):

M1.1 A list of ~~R~~real-time operating positions.

M1.2 A list of ~~Rreal-time operating personnel~~System Operators assigned to its ~~R~~real-time operating positions.

¹ Non-NERC certified personnel learning or observing the tasks of an operating position must be under the direct supervision of a NERC Certified System Operator at that operating position who has the sole responsibility for the performance of the reliability-related tasks.

- M1.3 A copy of each of its ~~Real-time operating personnel's~~ System Operator's NERC certificate or NERC certificate number with expiration date.
- M1.4 Work schedules, work logs, or other equivalent evidence showing which ~~Real-time operating personnel~~ System Operators were assigned to work in Real-time operating positions.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Authority

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

~~1.2. Compliance Monitoring Period and Reset~~

~~Not Applicable~~

~~1.3.~~ 1.2. **Compliance Monitoring and Enforcement Processes:**

- Compliance Audits
- Self-Certifications
- Spot Checking
- Compliance Violation Investigations
- Self-Reporting
- Complaints

~~1.4.~~ 1.3. **Data Retention**

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall keep data or evidence to show compliance for three years or since its last compliance audit, whichever time frame is the greatest, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Reliability Coordinator, Transmission Operator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent records.

~~1.5.~~ 1.4. **Additional Compliance Information**

None.

2. Violation Severity Levels

R#	Lower VSL	Medium VSL	High VSL	Severe VSL
R1				The Reliability Coordinator failed to staff each Real-time operating position <u>performing Reliability</u>

Standard PER-003-1 — Operating Personnel Credentials Standard

				Coordinator reliability-related tasks with a n-individual System Operator having a valid NERC certificate as defined in Requirement R1.
R2				The Transmission Operator failed to staff each R real-time operating position performing Transmission Operator reliability-related tasks with a System Operator n-individual having a valid NERC certificate as defined in Requirement R2, Part 2.2.
R3				The Balancing Authority failed to staff each R real-time operating position performing Balancing Authority reliability-related tasks with a System Operator n-individual having a valid NERC certificate as defined in Requirement R3, Part 3.2.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1		Complete revision under Project 2007-04	Revision



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Standards Announcement

Ballot Pool and Pre-ballot Window (with Comment Period)

Project 2007-04 — Certifying System Operators

Now available at: http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Project 2007-04: Certifying System Operators

On March 18, 2010, FERC issued several orders and notices of proposed rulemakings pertaining to standards development activities and processes, suggesting a lack of progress in responding to directives from Order 693 as well in the timeliness of standards development in general. At the May 2010 NERC Board meeting, Gerry Cauley, NERC's President, also expressed these concerns, indicating that the resolution to these concerns is one of NERC's top priorities in the near term. As a result, the Standards Committee has authorized deviations from the normal standards development process for the Certifying System Operators project, as well as other projects that have been through significant stakeholder review through the development process, to demonstrate that the NERC enterprise is responsive to FERC directives, and is making progress in developing new standards.

The Standards Committee's Executive Committee approved the following deviations from the standards development process:

- The proposed changes to the standard will be posted for a 45-day comment period. The ballot pool will be formed during the first 30 days of the 45-day comment period;
- The initial ballot will be conducted during the last 10 days of the 45-day comment period.

Ballot Pool (through September 9, 2010)

Registered Ballot Body members may join the ballot pool **until 8 a.m. Eastern on September 9, 2010** to be eligible to vote in the upcoming ballot at the following page: <https://standards.nerc.net/BallotPool.aspx>

During the pre-ballot window, members of the ballot pool may communicate with one another by using their "ballot pool list server." (Once the balloting begins, ballot pool members are prohibited from using the ballot pool list server.) The list server for this ballot pool is: [bp-2007-04 CS0 PER-003 in@nerc.com](mailto:bp-2007-04_CS0_PER-003_in@nerc.com)

Members who join the ballot pool to vote on the standard will automatically be entered in a separate pool to participate in the non-binding poll of the associated violation risk factors (VRFs) and violation severity levels (VSLs). (As a reminder, this new approach for VRFs and VSLs is one of the updates reflected in the recently FERC-approved Reliability Standards Development Procedure – Version 7.)

Comment Period (through September 24, 2010)

Please use this [electronic form](#) to submit comments. If you experience any difficulties in using the electronic form, please contact Courtney Camburn at 609-524-0624.

Project Background

PER-003-0, a “Version 0” standard, requires the Reliability Coordinator, Balancing Authority, and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential. The standard is being revised to address the directives from FERC Order 693 and industry comments from Version 0. The standard will also be revised to conform to the latest version of the Reliability Standards Development Procedure and the ERO Sanctions Guidelines.

Further details are available on the project page:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Applicability of Standards in Project

Transmission Operator

Balancing Authority

Reliability Coordinator

Standards Development Process

The [*Reliability Standards Development Procedure*](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

For more information or assistance, please contact Courtney Camburn at Courtney.camburn@nerc.net

Individual or group. (33 Responses)
Name (23 Responses)
Organization (23 Responses)
Group Name (10 Responses)
Lead Contact (10 Responses)
Question 1 (32 Responses)
Question 1 Comments (33 Responses)
Question 2 (30 Responses)
Question 2 Comments (33 Responses)
Question 3 (32 Responses)
Question 3 Comments (33 Responses)
Question 4 (32 Responses)
Question 4 Comments (33 Responses)
Question 5 (0 Responses)
Question 5 Comments (33 Responses)

Individual
Brad Pederson
Portland General Electric
Yes
PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
Yes
PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
Yes
PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
Yes
PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
Individual
Dan Rochester
Independent Electricity System Operator
Yes
Yes
Yes
Yes
Individual
Michael Lombardi
Northeast Utilities
Yes
Yes
Yes
Yes

Individual
Joylyn Faust
Consumers Energy
Yes
Yes
12 months is adequate, but not less than 12 months.
Yes
There is no need for footnote (1). Of particular concern is the phrase "at that position". This can be taken quite literally to a qualified operator who is required to sit behind the trainee. Consumers contends the Trainee is sufficiently supervised by a NERC Certified Operator that has the responsibility for the position and is monitoring the position. There is no need for this addition.
Yes
Please see comment #3.
Individual
Edward c. Stein
self
Yes
Yes
Yes
Yes
The changes try to clarify the motherhood and apple pie statements. the real test will be how the Compliance people interpret and measure the standard
Individual
Joe O'Brien
NIPSCO
Yes
Yes & No, it's still vague who must be certified and in the SAR it was suggested that this issue be addressed as it relates to the 2006 unapproved interpretation. However, from a compliance point of view we're not sure if this is a bad thing.
Yes
Time seems adequate
Yes
Yes & no, it's still vague who must be certified and in the SAR it was suggested that this issue be addressed as it relates to the 2006 unapproved interpretation. However, from a compliance point of view we're not sure if this is a bad thing.
No
No, "reliability related tasks" should be included in the measurements M1.1 & M1.2 since only the system operators performing such tasks need to be certified.
In the context of NERC Reliability Standards we believe that Generator Operator should be removed from the System Operator definition. Throughout the standards and the SOCCED we think that System Operator includes only BA, RC & TOP. Also, it was suggested in the SAR that "grandfathering" be addressed and we don't see that.
Group
Northeast Power Coordinating Council
Guy Zito
Yes
Yes
Yes

Yes
Individual
John Bee
Exelon
Yes
Yes
Yes
Yes
Individual
Jonathan Appelbaum
The United Illuminating Company
Yes
Yes
Yes
Yes
For clarity, consider modifying M1 to include the phrase performing reliability-related tasks, e.g A list of Real-time operating positions performing reliability-related tasks.
Individual
Kasia Mihalchuk
Manitoba Hydro
Yes
Yes
Yes
Yes
Group
Platte River Power Authority
Deborah Schaneman
Yes
Yes
Yes
Yes

Individual
Greg Rowland
Duke Energy
Yes
Yes
No
<p>• R1, R2 and R3 – Strike the phrase “in the areas listed” from each requirement, and delete Sections 1.1, 2.1 and 3.1. We believe that listing the Areas of Competency in these three requirements is unnecessary to satisfy the Order 693 directive, since the requirements clearly link competency to NERC certification, and the Operator Certification program documents list the Areas of Competencies. Also if the Areas of Competency were ever modified, then you’d have to generate a revision to the standard. We believe that incorporating them by reference is a better way. • If the SDT decides that the Areas of Competency must be listed in the standard, then they should be bulleted and not numbered like sub-requirements, because you can’t graduate VSLs for the requirement based upon them. • R2 and R3 – The Certificates should be included in the text of the requirements and not numbered like sub-requirements. If the Areas of Competency are deleted, then you could leave the Certificates under the requirements, but if so they should be bulleted and not numbered like sub-requirements. Also, delete the phrase “Part 2.2” from the R2 VSL and delete the phrase “Part 3.2” from the R3 VSL. • R1 and R2 Footnote – we agree with this clarifying footnote, but question whether it carries the same weight as if it were included as part of the requirements (i.e. could an entity still be found non-compliant for having a non-certified trainee learning or observing?).</p>
No
We believe M1.1 creates potential for confusion and should be deleted. It is not part of any of the requirements. M1.2, M1.3 and M1.4 are sufficient.
Individual
RoLynda Shumpert
South Carolina Electric and Gas
Yes
Yes
Yes
Yes
Individual
Matt Brewer
San Diego Gas and Electric Co.
No
The term “NERC System Operator Certification Program” needs to be defined.
Yes
No
In R2, “Transmission Operator reliability-related tasks” need to be clearly defined and/or identified. Additionally, the following insertions between brackets need to be made to the text: “. . . in the areas listed <in R2.1> by obtaining and maintaining one of the following valid NERC certificates <listed in R2.2>.
No
How about emergency exceptions? The previous version of this standard, PER-003-0, allows for emergency exceptions in M1.2.
Section D, #2 (Violation Severity Levels) -- there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.
Group
NextEra Energy
Silvia Parada Mitchell

Yes
Yes
No
Suggest the following edits to clarify further and be consistent with standards formatting: R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R1.1 below, by obtaining and maintaining a valid NERC Reliability Operator certificate (1[Risk Factor: High][Time Horizon: Real-time Operations] R1.1. Areas of competency (based on exam content outline) R1.1.1. Resource and demand balancing R1.1.2. Transmission operations R1.1.3. Emergency preparedness and operations R1.1.4. System operations R1.1.5. Protection and control R1.1.6. Voltage and reactive R1.1.7. Interchange scheduling and coordination R1.1.8. Interconnection reliability operations and coordination R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R2.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R2.2 below. (1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R2.1. Areas of competency (based on exam content outline) R2.1.1. Transmission operations R2.1.2. Emergency preparedness and operations R2.1.3. System operations R2.1.4. Protection and control R2.1.5. Voltage and reactive R2.2. Certificates R2.2.1 Reliability Operator R2.2.2 Balancing, Interchange and Transmission Operator R2.2.3 Transmission Operator R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R3.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R3.2 below.(1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R3.1. Areas of competency (based on exam content outline) R3.1.1. Resources and demand balancing R3.1.2. Emergency preparedness and operations R3.1.3. System operations R3.1.4. Interchange scheduling and coordination R3.2. Certificates R3.2.1 Reliability Operator R3.2.2 Balancing, Interchange and Transmission Operator R3.2.3 Balancing and Interchange Operator
Yes
See question 3.
Individual
Jon Kapitz
Xcel Energy
Yes
None
Yes
Yes
We continue to assert that listing the competencies here is ineffective. This standard should only list the certificates required for each function (e.g. BA, TOP, RC). The competencies should be outlined in the governing documents for the certification development. Entities have no control over what is contained within the exams to obtain those certificates, thus it is pointless to even list those competencies in the standard unless they are applicable to the entity and they can do something to affect compliance with those competencies listed. To address concerns about competencies, we also believe that PER-005 spells out that operators have requirements to identify reliability tasks and have demonstrated competency to those tasks.
Individual
Thad Ness
American Electric Power (AEP)
Yes
Yes
No
AEP recommends that footnote number 1 should be removed from this standard. If it is to remain, AEP recommends that the language should be as follows: The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks. If our recommendations are not accepted, then the term "operating position" needs to be formally defined or removed.

Yes
Group
Southern Company
Andy Tillery
Yes
Yes
No
We believe the term “competency” should be changed to “capability” to more accurately reflect the purpose of the statement. The certification process assures that an operator is “capable” of performing reliability related tasks, not that the operator is “competent” in performing those tasks. In order to determine “competency”, the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term “competency” should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term “competency” to “capability” in each of the three requirements. We believe that listing the specific technical “Areas of Competency” under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the “Areas of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements.
No
Again, in line with our comment on #3, we request that “competency” be changed to “capability”. M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure. M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read “NERC certificate number with issuance & expiration date for each System Operator.”
For consistency and to better identify the application of the standard, we suggest changing the title to “Real-time Operating Personnel Credentials” Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.
Individual
Ed Davis
Entergy Services
Yes
Yes
No

The requirements and measures both focus on the activity of achieving and maintaining certification at the appropriate certification level. The list of competencies are not needed. The exam working group determines the content of the exam, and the entity doesn't have control over that content, to ensure that the list of competencies included in the requirements are all covered in the exam to the degree needed. The list of minimum competencies should be removed from the requirements.

No

M1.3 – It should not be necessary to provide a copy of the NERC certificate. A list of operators and certificate numbers and dates should be sufficient. NERC should be able to verify if the names and numbers are correct and current. I recommend that only the certificate number be required in M1.3

Group

Bonneville Power Administration

Denise Koehn

Yes

Yes

Yes

Yes

Individual

Eric Senkowicz

FRCC Manager of Operations

Yes

Yes

No

Suggest the following edits to clarify further and be consistent with standards formatting and capitalization of defined terms: R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R1.1 below, by obtaining and maintaining a valid NERC Reliability Operator certificate (1[Risk Factor: High][Time Horizon: Real-time Operations] R1.1. Areas of Ccompetency (based on exam content outline) R1.1.1. Resource and demand balancing R1.1.2. Transmission operations R1.1.3. Emergency preparedness and operations R1.1.4. System operations R1.1.5. Protection and control R1.1.6. Voltage and reactive R1.1.7. Interchange scheduling and coordination R1.1.8. Interconnection reliability operations and coordination R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R2.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R2.2 below. (1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R2.1. Areas of competency (based on exam content outline) R2.1.1. Transmission operations R2.1.2. Emergency preparedness and operations R2.1.3. System operations R2.1.4. Protection and control R2.1.5. Voltage and reactive R2.2. Certificates R2.2.1 Reliability Operator R2.2.2 Balancing, Interchange and Transmission Operator R2.2.3 Transmission Operator R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R3.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R3.2 below.(1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R3.1. Areas of competency (based on exam content outline) R3.1.1. Resources and demand balancing R3.1.2. Emergency preparedness and operations R3.1.3. System operations R3.1.4. Interchange scheduling and coordination R3.2. Certificates R3.2.1 Reliability Operator R3.2.2 Balancing, Interchange and Transmission Operator R3.2.3 Balancing and Interchange Operator

Yes

Please see presponse to question 3. Thanks for the opportunity to comment.

Individual

Matt Stryjewski

BGE

We support the clarification of PER-003 in this new revision. We also support the use of the NERC System Operator Certification Program as a manner in which to ensure that System Operators can demonstrate competency in the reliability-related tasks of their position.
Group
Electric Market Policy
Mike Garton
Yes
Yes
No
Dominion recommends changes to the above sentence to read as follows; "System Operators who have obtained and maintain one of the following valid NERC certificates:" Dominion suggests the phrase 'in the areas listed' implies something that can be construed by an auditor as something measurable. R1. and R2. both contain 'Areas of Competency' which an auditor could interpret as sub requirements. They are not explicitly represented in the measures section as it currently exists. The 'Areas of Competency' are included in the NERC SO examination. Inserting "obtained and maintain" simplifies the standard. 'Obtaining and maintaining' are used in the measures section (M1.).
No
Dominion recommends changes to the above sentence to read as follows; M1.3 System Operators name and NERC certificate number. Dominion believes providing a 'copy' of a certificate does not represent the validity of the certificate. The "proof" is the NERC certificate test results which NERC has on file internally. SO Name and certificate number should be sufficient. M1.1, M1.2, are redundant to M1.4. Eliminate M1.1 and M1.2. ET recommends changes to the above sentence to include 'NERC certified' M 1.4 Work schedules, work logs, or other equivalent evidence showing which 'NERC certified' System Operators were assigned to work in Real-time operating positions.
Consider changing title of Standard to include "Real Time" Operating Personnel Credentials Standard. This would eliminate the potential ambiguity or perception requiring Transmission Planners and other support staff to be NERC certified.
Individual
Laura Zotter
ERCOT ISO
Yes
Yes
No
ERCOT ISO disagrees with the use of the word competency and thinks the word knowledge applies more appropriately. The current NERC certification tests knowledge and the ability to cognitively apply that knowledge to problems. As another alternative, ERCOT ISO agrees with the SRC comments to remove the word "competency" and reword the requirement as follows: "Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have obtained and maintain one of the following valid NERC certificates:".
No
As explained in its response to Question 3, ERCOT ISO disagrees with the use of the word "competency" and thinks the word "knowledge" applies more appropriately. ERCOT ISO agrees with the wording of the measures, as they apply to all the requirements.
As explained in its response to Question 3, ERCOT ISO disagrees with the use of the word "competency" and thinks the word "knowledge" applies more appropriately. These requirements are part of the System Operator Certification and are assessed by the Personnel Certification Governance Committee (PCGC).
Group
FirstEnergy
Sam Ciccone
Yes
Yes

Yes
Yes
FE supports the changes and thanks the drafting team for their hard work on this project.
Individual
Tony Kroskey
Brazos Electric Power Cooperative, Inc.
Yes
No
Should allow up to 18 months.
No
The requirements should simply state "Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have an appropriate and valid NERC certificate". The NERC certificate program by design establishes what the minimum competency is for each certificate type.
No
Simplify by striking "demonstrated the applicable minimum competency by obtaining and maintaining" from the Measure.
Individual
Martin Bauer
US Bureau of Reclamation
Yes
No
The definition of System Operators "An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time." includes Generator Operators. The only reason the definition is not consistent with the standard and should be modified to exclude Generator Operator.
Yes
Group
MRO's NERC Standards Review Subcommittee
Carol Gerou
Yes
Yes
No
The NSRS recommends that the SDT changes "performing reliability-related tasks" to "meeting its functional obligations" to reflect recent changes made to other approved standards. In addition, the definition of "System Operator" includes "Generator Operator", however generator operators are not covered in any specific requirement in the standard. We believe the term "Generator Operator" should be removed from the definition of "System Operator", or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. The NSRS would also like to point out the Generator Operator is the Registered Entity that meet the obligations set in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.
Yes
The NSRS recommends that the requirements regarding the "minimum competencies" are misapplied to the functional entities. As stated in R1, R2, and R3 a System operator has to demonstrate minimum competencies that are obtained by a valid NERC Reliability Operator certificate. Applicable entities have no ability to know if these "areas of Competency" are adequately addressed within the NERC Certification Program (the test) or not. If the SDT believes

that System Operators require a valid NERC Certificate to operate a Real-time position responsible for control of the BES, it should be simply stated. If not these Areas of Competency should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with staff that has been become certified and maintained that certification through NERC. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow requirements on the ERO. As an example, the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting includes many requirements on the ERO and is following the result-based approach.

Individual

Steve Toth

Covanta Energy

Yes

Yes

No

The definition of "System Operator" includes "Generator Operator", however generator operators are not covered in any specific requirement or applicability section in this standard. The term "Generator Operator" should be removed from the definition of "System Operator", or specifically noted as "not applicable" for this standard, to remove any ambiguity in the implementation of this standard. The Generator Operator is the registered entity that is expected to meet the obligations documented in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.

Yes

Group

Midwest ISO Standards Collaborators

Jason Marshall

Yes

Yes

No

To be consistent with other recently approved standards, we suggest changing "performing reliability-related tasks" to "meeting its functional obligations". This is the language used in the recently approved R1 EOP-008-1 and then ties the requirement back to the functional model which is task specific. We do also note that the term System Operator includes generator operators in the definition. However, generator operators are not covered in the standard in a specific requirement. This could cause some confusion on exactly to whom that standard applies.

Yes

The requirements regarding the minimum competencies are misapplied to the functional entities. They should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with staff that has become certified and maintained that certification through NERC. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow requirements on the ERO. As an example, the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting includes many requirements on the ERO and is following the results-based approach.

Group

SERC OC-SOS Standards Review Group

Margaret Stambach

Yes

Yes

No

Our group continues to believe that the term “competency” should not be used to describe an operator who has simply become certified through the NERC System Operator Certification Program. The certification process only assures that an operator is “capable” of perform reliability-related tasks. To deem the operator “competent” in performing such tasks, one would have to observe performance over a long period of time and under unexpected operating conditions. Changing the word “competency” to “capability” would make the statement above accurate. We also see the listing of specific technical areas under each requirement as problematic and prescriptive. By listing the areas, a process is set up that will potentially be very hard to manage. If a topic needs to be added or subtracted, the exam would be changed accordingly; however, then the standard would have to be changed, including creation of a SAR followed by industry comment, balloting periods, and approvals. The areas of capability for each function are all included in the certification exam requirements, and need not be listed in this draft standard. Furthermore, the fact that each technical area is numbered indicates that each one is a sub-requirement of the standard. Yet, there are no measures associated with the technical areas. So how can it be determined that an entity is compliant or non-compliant with this part of the standard? Our group suggests that the standard drafting team consider making the following changes to each of the three requirements: -- In the requirement statement, replace the word “competency” with “capability” and strike the phrase “in the areas listed”. -- Strike the section “Areas of Competency”. If these technical areas must be listed, change the heading to “Areas of Capability”, use bullets instead of numbers, and move to an appendix of this standard.

No

In the Measure statement, the word “competency” should be changed to “capability” for the reasons given in our response to Question 3 above. For M 1.1, our group feels that maintaining a list of specific operating position titles as evidence may lead to confusion among the auditors. System operators who perform the same reliability functions will undoubtedly have different titles at different entities. These title differences could lead to unnecessary and lengthy discussions during the audit process. Our feeling is that the position title itself should not matter as long as an entity can show evidence that each operator is NERC-certified and in what specific credential. A good solution to streamline the measures and avoid confusion during an audit would be to fold both measures M 1.1 and M 1.2 into M 1.4. In M 1.4, add the phrase “NERC-certified” before “System Operators”. The work schedules/work logs evidence required by M 1.4 will identify each operator assigned to perform Real-time reliability functions, as well as his/her Real-time operating position. M 1.1 & M 1.2 evidence is redundant and these measures can be eliminated. For M 1.3 – Our group strongly feels that maintaining a paper or electronic copy of each operator’s actual NERC certificate is unnecessary and can be problematic, since only the operator has access to his/her actual certificate. Instead, the evidence of certification for System Operators should be simply a list of the certificate numbers and the issuance/expiration dates. If an employer does not have this information and cannot obtain it from the operator, the employer does have recourse to get confirmation from NERC that an individual holds a valid NERC certificate (Ref: p.14 of System Operator Certification Program Manual, updated November 2009). We realize that M 1.3 requires as evidence EITHER a copy OR the number/expiration date for the certificate; however the implication is that, if an actual copy cannot be produced, the entity is not complying as well with the standard as those entities that CAN produce a copy. This group feels that, for consistency and fairness to all entities, the certificate copy evidence should be eliminated. Therefore, we ask the standard drafting team to please consider changing the statement for M 1.3 to: M 1.3 NERC certificate number with expiration date for each System Operator.

To better identify the operators to whom this standard applies, please consider changing the title of the standard to “Real-time Operating Personnel Credentials” To be consistent with other reliability standards, please consider adjusting the numbering of the measures to be the same as the numbering of the requirements. The standard drafting team is to be commended for their thoughtful consideration of comments from the last review cycle, and their response to every concern from the industry. “The comments expressed herein represent a consensus of the views of the above named members of the SERC OC-SOS Standards Review Group only and should not be construed as the position of SERC Reliability Corporation, its board or its officers.”

Individual

Darryl Curtis

Oncor Electric Delivery

Yes

Yes

Yes

Yes

Individual

Val Lehner

ATC

Yes

Yes
No
<p>Although ATC appreciates the drafting team's attempt to provide clarity we disagree with the inclusion of the list of minimum competencies (Requirement 1.1, 2.1 and 3.1). An entity may be able to demonstrate the minimum competencies requirements by showing that all System Control Operators (SCO) have a valid NERC certificate, but we have major concerns that if an auditor asked for additional evidence an entity would not be able to comply. The NERC Certification test is developed and administered by the ERO (i.e. NERC). As a Registered Entity we have no ability to ensure that the minimum competency requirements are covered by the NERC Certification Test. But since they are identified as Requirements we are required to demonstrate compliance. NERC Standard PER-005 addresses the issue of continual education using a systematic approach to training. It is ATC strong opinion that the minimum competencies requirements be deleted from the standard and that NERC demonstrates to FERC that they address these minimum competencies in the NERC Certification exam. ATC believes that this standard should only require that SCO (RC, TOP and BA) be NERC Certified.</p>
No
<p>Clarity should be provided in M1.1. Is this a list of positions that could perform real-time operating positions or a job description? In addition changing the statement to read "Each Reliability Coordinator, Transmission Operator and Balancing Authority may use the following evidence..." will indicate that the entity may use other evidence to demonstrate compliance and that these are only examples. The measures should not be prescriptive or limiting</p>
<p>ATC recommends that the footnote be changed to read "Personnel learning or observing the tasks of an operating position must be under the direct supervision of a NERC Certified System Operator at that operating position who has the sole responsibility for the performance of the reliability-related task." Delete the words "non-NERC certified". ATC is concerned that the qualifying term "non-NERC Certified" is too prescriptive in identifying who qualifies as a trainee. Entities may have a trainee that is NERC Certified but has not been cleared to work the desk. The qualifying term (non-NERC Certified) would make it unnecessarily difficult for entities to identify those individuals as a trainee.</p>

Consideration of Comments on Second Draft of PER-003-1 - Operating Personnel Credentials — Project 2007-04

The Operating Personnel Credentials Standard Drafting Team thanks all commenters who submitted comments on the draft Operating Personnel Credentials standard (PER-003-1). The standard was posted for a 45-day public comment period from August 10, 2010 through September 24, 2010. The stakeholders were asked to provide feedback on the standards through a special Electronic Comment Form. There were 33 sets of comments, including comments from more than 87 different people from approximately 32 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received the drafting team made the following changes to the proposed Standard:

- Modified the footnote to provide additional clarity.
- Modified Measure M1.3 to provide additional clarity.
- Corrected the second footnote to use the same wording as the first footnote.

There were several minority issues that the team was unable to resolve, including the following:

- Several stakeholders objected to the standards reference to "competencies." The team is required to address the FERC directive from Order 693 that states that the standard must identify the minimum competencies operating personnel must demonstrate to be certified. The team met with FERC staff and confirmed that the directive does intend for competencies to be identified in the standard.
- Several stakeholders objected to the use of the term "System Operator" because the NERC Glossary definition contains the 'Generator Operator' within the parenthetical. The team explained that while the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator.
- Several stakeholders wanted the Measure to be re-worded to only include the System Operators name and NERC certificate number as proof of compliance. The team explained that the Measure as currently written already allowed for either "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date". The team further explained that this was done to allow the entity being audited to determine the method that best suits its needs.
- Several stakeholders want the VSLs to be graduated and the team did not change the VSLs. The VSLs proposed meet both NERC and FERC VSL Guidelines.
- A few stake holders wanted the ERO to be required to create and maintain a certification program that meets the minimum competencies identified within the standard. The team explained that NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. They further explained that the program, by design, was autonomous and that this program was already included in the NERC Rules of Procedure. The team further stated that they felt placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received can be viewed in their original format at:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

1. The SDT has modified the Purpose statement of the draft standard. The Purpose statement now reads "To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System".	10
2. Although the industry as a whole did not request additional time for the implementation of this standard, the SDT responded to those entities that requested additional time. The SDT determined that there may be instances where existing certificate holders may need to obtain a different certificate, and, consequently, modified the effective date of the draft standard to be twelve months after regulatory approval/or BOT approval where there is no regulatory approval required.	13
3. The SDT has modified the body of all three Requirements to provide additional clarity as to who is to be certified. The body of the Requirement(s) now reads: "Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates".	17
4. The SDT has modified the Measure to better align with the Requirement(s). The Measure now reads "Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3): M1.1 A list of Real-time operating positions. M1.2 A list of System Operators assigned to its Real-time operating positions. M1.3 A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date. M1.4 Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.	29
5. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.	30

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Guy Zito	Northeast Power Coordinating Council	10									
	Additional Member	Additional Organization	Region	Segment Selection									
1.	Alan Adamson	NY State Reliability Council	NPCC	10									
2.	Gregory Campoli	New York ISO	NPCC	2									
3.	Kurtis Chong	Independent Electricity System Operator	NPCC	2									
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1									
5.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1									

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual	Commenter	Organization	Registered Ballot Body Segment																	
			1	2	3	4	5	6	7	8	9	10								
6.	Gerry Dunbar	NPCC	NPCC	10																
7.	Dean Ellis	Dynegy Generation	NPCC	5																
8.	Brian Evans-Mongeon	Utility Services	NPCC	8																
9.	Brian Gooder	Ontario Power Generation Incorp	NPCC	5																
10.	Kathleen Goodman	ISO New England	NPCC	2																
11.	Chantel Haswell	FPL Group	NPCC	5																
12.	David Kiguel	Hydro One Networks	NPCC	1																
13.	Michael Lombardi	Northeast Utilities	NPCC	1																
14.	Randy MacDonald	New Brunswick System Operator	NPCC	2																
15.	Bruce Metruck	NY Power Authority	NPCC	6																
16.	Lee Pedowicz	NPCC	NPCC	10																
17.	Robert Pellegrini	The United Illuminating Co	NPCC	1																
18.	Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1																
19.	Saurabh Saksena	National Grid	NPCC	1																
20.	Michael Schiavone	National Grid	NPCC	1																
21.	Peter Yost	Consolidated Edison	NPCC	3																
22.	Mike Garton	Dominion Resources Services	NPCC	5																

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
2.	Group	Deborah Schaneman	Platte River Power Authority	1, 3, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Jeff Landis	Platte River Power Authority	WECC	1,3,6									
3.	Group	Denise Koehn	Bonneville Power Administration	1, 3, 5, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Bernie O'Connell	BPA, Transmission Dispatch	WECC	1									
4.	Group	Mike Garton	Electric Market Policy	1, 3, 5, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Michael Gildea	Dominion Resources Services	SERC	3									
2.	Louis Slade	Dominion Resources Services	RFC	6									
3.	John Loftis	Dominion Virginia Power	SERC	1									
5.	Group	Sam Ciccone	FirstEnergy	1, 3, 4, 5, 6									
Additional Member		Additional Organization	Region	Segment Selection									
1.	Jim Eckels	FE	RFC	1									
2.	Steve Megay	FE	RFC	1									

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
3. Doug Hohlbaugh		FE	RFC	1									
6.	Group	Carol Gerou	MRO's NERC Standards Review Subcommittee	10									
	Additional Member	Additional Organization	Region	Segment Selection									
1.	Mahmood Safi	Mahmood Safi	MRO	1,3,5,6									
2.	Chuck Lawrence	American Transmission Co.	MRO	1									
3.	Tom Webb	WPS Corporation	MRO	3,4,5,6									
4.	John Marshall	Midwest ISO	MRO	2									
5.	Jodi Jensen	Western Area Power Admin.	MRO	1,6									
6.	Ken Goldsmith	Alliant Energy	MRO	4									
7.	Dave Rudolf	Basin Electric Power Cooperative	MRO	1,3,5,6									
8.	Eric Ruskamp	Lincoln Electric System	MRO	1,3,5,6									
9.	Joseph Knight	Great River Energy	MRO	1,3,5,6									
10.	Joe DePoorter	Madison Gas & Electric	MRO	3,4,5,6									
11.	Scott Nickels	Rochester Public Utilities	MRO	4									
12.	Terry Harbour	MidAmerican Energy	MRO	1,3,5,6									
7.	Group	Jason Marshall	Midwest ISO Standards Collaborators	2									
	Additional Member	Additional Organization	Region	Segment									

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization		Registered Ballot Body Segment									
					1	2	3	4	5	6	7	8	9	10
				Selection										
1.	Joe Knight	Great River Energy	MRO	1,3,5,6										
2.	Jim Cyrulewski	JDRJC Associates	RFC	8										
8.	Group	Margaret Stambach	SERC OC-SOS Standards Review Group		1, 3, 5, 9, 10									
	Additional Member	Additional Organization	Region	Segment Selection										
1.	Gerry Beckerle	Ameren	SERC	1,3										
2.	Robert Thomasson	Big Rivers Electric	SERC	1,2,5,9										
3.	Angela Park	Dominion	SERC	1,3										
4.	Sam Holeman	Duke Energy	SERC	1,3,5										
5.	Greg Rowland	Duke Energy	SERC	1,3,5										
6.	Andy Burch	Electric Energy	SERC	1,5										
7.	Larry Rodriquez	Entegra Power	SERC	5										
8.	Mark Brown	Entergy Transmission	SERC	1,3										
9.	Jim Case	Entergy Transmission	SERC	1,3										
10.	Wayne Mitchell	Entergy Transmission	SERC	1,3										
11.	Melinda Montgomery	Entergy Transmission	SERC	1,3										
12.	Barry Hardy	OMU	SERC	1,3,5										
13.	Bill Thigpen	PowerSouth	SERC	1,3,5										
14.	John Lemire	Progress Energy	SERC	1,3,5										
15.	Gene Delk	SCE&G	SERC	1,3,5										

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment																
				1	2	3	4	5	6	7	8	9	10							
16.	Steve Hebert	SCE&G	SERC	1,3,5																
17.	John Rembold	SIPC	SERC	1,3,5																
18.	Randy Castello	Sothern Company	SERC	1,3,5																
19.	Rocky Williamson	Southern Company	SERC	1,3,5																
20.	Sam Austin	TVA	SERC	1,3,5,9																
21.	Edd Forsythe	TVA	SERC	1,3,5,9																
22.	Joe Wise	TVA	SERC	1,3,5,9																
9.	Individual	Silvia Parada Mitchell	NextEra Energy		x		x		x	x										
10.	Individual	Andy Tillery	Southern Company		x		x													
11.	Individual	Brad Pederson	Portland General Electric		x															
12.	Individual	Dan Rochester	Independent Electricity System Operator			x														
13.	Individual	Michael Lombardi	Northeast Utilities		x		x		x											
14.	Individual	Joylyn Faust	Consumers Energy				x	x	x											
15.	Individual	Edward c. Stein	Self																x	
16.	Individual	Joe O'Brien	NIPSCO		x		x		x	x										
17.	Individual	John Bee	Exelon		x		x		x											
18.	Individual	Jonathan Appelbaum	The United Illuminating Company		x															

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
19.	Individual	Kasia Mihalchuk	Manitoba Hydro	x		x		x	x				
20.	Individual	Greg Rowland	Duke Energy	x		x		x	x				
21.	Individual	RoLynda Shumpert	South Carolina Electric and Gas	x		x		x	x				
22.	Individual	Matt Brewer	San Diego Gas and Electric Co.	x		x		x	x				
23.	Individual	Jon Kapitz	Xcel Energy	x		x		x					
24.	Individual	Thad Ness	American Electric Power (AEP)	x		x		x	x				
25.	Individual	Ed Davis	Entergy Services	x		x		x	x				
26.	Individual	Eric Senkowicz	FRCC Manager of Operations										x
27.	Individual	Matt Stryjewski	BGE	x									
28.	Individual	Laura Zotter	ERCOT ISO		x								
29.	Individual	Tony Kroskey	Brazos Electric Power Cooperative, Inc.	x									
30.	Individual	Martin Bauer	US Bureau of Reclamation					x					
31.	Individual	Steve Toth	Covanta Energy					x					
32.	Individual	Darryl Curtis	Oncor Electric Delivery	x									
33.	Individual	Val Lehner	ATC	x									

1. The SDT has modified the Purpose statement of the draft standard. The Purpose statement now reads “To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority or Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System”.

Do you agree that the modified Purpose statement provides greater clarity as to who is affected and how certification is to be accomplished? If not, please explain in the comment area.

Summary Consideration: One commenter felt that the NERC System Operator Certification Program needed to be defined. The SDT explained that the Program was already defined in both the Rules and Procedures Section 600 and Appendix 6. Another commenter was in agreement with the Purpose Statement but felt that it was still a little vague as to who needed to be certified. The SDT explained that the SDT felt it was very clearly stated and that the majority of the industry supported their belief.

Organization	Yes or No	Question 1 Comment
San Diego Gas and Electric Co.	No	The term “NERC System Operator Certification Program” needs to be defined.
<p>Response: The NERC System Operator Certification Program is a defined program in both the Rules of Procedure Section 600 & System Operator Certification Program Manual, Appendix 6.</p>		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>		
NIPSCO	Yes	Yes & No, it’s still vague who must be certified and in the SAR it was suggested that this issue be addressed as it relates to the 2006 unapproved interpretation. However, from a compliance point of view we’re not sure if this is a bad thing.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. However, the majority of the industry supported the SDT’s position on this subject.</p>		

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Organization	Yes or No	Question 1 Comment
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
Electric Market Policy	Yes	
FirstEnergy	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
Midwest ISO Standards Collaborators	Yes	
SERC OC-SOS Standards Review Group	Yes	
NextEra Energy	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	
Consumers Energy	Yes	
Edward c. Stein	Yes	
Exelon	Yes	

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Organization	Yes or No	Question 1 Comment
The United Illuminating Company	Yes	
Manitoba Hydro	Yes	
Duke Energy	Yes	
South Carolina Electric and Gas	Yes	
Xcel Energy	Yes	
American Electric Power (AEP)	Yes	
Entergy Services	Yes	
FRCC Manager of Operations	Yes	
ERCOT ISO	Yes	
Brazos Electric Power Cooperative, Inc.	Yes	
US Bureau of Reclamation	Yes	
Covanta Energy	Yes	
Oncor Electric Delivery	Yes	
ATC	Yes	

2. Although the industry as a whole did not request additional time for the implementation of this standard, the SDT responded to those entities that requested additional time. The SDT determined that there may be instances where existing certificate holders may need to obtain a different certificate, and, consequently, modified the effective date of the draft standard to be twelve months after regulatory approval/or BOT approval where there is no regulatory approval required.

Do you agree that this additional time is sufficient for all entities to comply with the standard? If not, please explain in the comment area.

Summary Consideration: One commenter stated that they felt implementation period should be 18 months instead of 12 months. The SDT explained that it had extended the initial implementation period to twelve months based on comments received during the first comment period. The SDT further explained that the majority of the industry supported the twelve month implementation period.

Organization	Yes or No	Question 2 Comment
Brazos Electric Power Cooperative, Inc.	No	Should allow up to 18 months.
Response: As a result of the first posting, the SDT modified the effective date to twelve months in the event that some currently certified personnel may not hold the proper NERC certificate as defined by this standard which the majority of the industry supported during this comment period.		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
Response: The SDT thanks you for your affirmative response and clarifying comment.		
Consumers Energy	Yes	12 months is adequate, but not less than 12 months.
Response: The SDT thanks you for your affirmative response and clarifying comment.		
NIPSCO	Yes	Time seems adequate
Response: The SDT thanks you for your affirmative response and clarifying comment.		

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Organization	Yes or No	Question 2 Comment
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
Electric Market Policy	Yes	
FirstEnergy	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
Midwest ISO Standards Collaborators	Yes	
SERC OC-SOS Standards Review Group	Yes	
NextEra Energy	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	
Edward c. Stein	Yes	
Exelon	Yes	
The United Illuminating Company	Yes	

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Organization	Yes or No	Question 2 Comment
Manitoba Hydro	Yes	
Duke Energy	Yes	
South Carolina Electric and Gas	Yes	
San Diego Gas and Electric Co.	Yes	
American Electric Power (AEP)	Yes	
Entergy Services	Yes	
FRCC Manager of Operations	Yes	
ERCOT ISO	Yes	
Covanta Energy	Yes	
Oncor Electric Delivery	Yes	
ATC	Yes	
Xcel Energy		None

3. The SDT has modified the body of all three Requirements to provide additional clarity as to who is to be certified. The body of the Requirement(s) now reads:

“Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates”.

Do you agree that this modification clearly states who is to be certified and clarifies that the obtaining and maintaining the certificate is how competence is demonstrated? If not, please explain in the comment area.

Summary Consideration: The majority of the commenters felt that minimum competencies should not be included in the standard and that the use of the term “System Operator” either should not be used in the standard or should be re-defined to exclude Generator Operators in the NERC Glossary definition. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represent the most efficient and effective method for meeting this FERC directive. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program will use both now and in the future. In addition, recertification through training will also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.

Regarding the comment concerning the use of the term System Operator, while the definition of the term ‘System Operator’ in the NERC Glossary is included in the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.

A few of the commenters were concerned that the minimum competencies were not directly expressed in the measures and questioned the formatting used in the Requirements. The “Areas of Competency” are implicitly included in Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.

Concerning the question on the formatting used in the Requirements, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.

A couple of the commenters wanted to change the phrase “performing reliability-related tasks” to “meeting its functional obligations”. The SDT explained that the phrase “meeting its functional obligations” as described in the functional model, could

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include tasks that are not reliability related and also tasks that are not required to be performed by System Operators and therefore, did not revise the standard to reflect this modification.

A couple of other commenters questioned if the footnote carried the same weight as if it were included as part of the requirements (i.e. could an entity still be found non-compliant for having a non-certified trainee learning or observing?). The SDT explained that it was their determination, based on the Standards Committee’s guidance, that the footnote would carry the same weight as the Requirement to which it is attached. The SDT further explained that the answer to their question “could an entity still be found non-compliant for having a non-certified trainee learning or observing?” is no, they would not be found non-compliant. The footnote was modified to provide further clarity and the footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks”.

Organization	Yes or No	Question 3 Comment
Electric Market Policy	No	<p>Dominion recommends changes to the above sentence to read as follows; “System Operators who have obtained and maintain one of the following valid NERC certificates:” Dominion suggests the phrase ‘in the areas listed’ implies something that can be construed by an auditor as something measurable. R1. and R2. both contain ‘Areas of Competency’ which an auditor could interpret as sub requirements. They are not explicitly represented in the measures section as it currently exists. The ‘Areas of Competency’ are included in the NERC SO examination. Inserting “obtained and maintain” simplifies the standard. ‘Obtaining and maintaining’ are used in the measures section (M1.).</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p>		
MRO's NERC Standards Review Subcommittee	No	<p>The NSRS recommends that the SDT changes “performing reliability-related tasks” to “meeting its functional obligations” to reflect recent changes made to other approved standards.</p> <p>In addition, the definition of “System Operator” includes “Generator Operator”, however generator operators</p>

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Organization	Yes or No	Question 3 Comment
		<p>are not covered in any specific requirement in the standard. We believe the term “Generator Operator” should be removed from the definition of “System Operator”, or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. The NSRS would also like to point out the Generator Operator is the Registered Entity that meet the obligations set in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.</p>
<p>Response: The wording, “meeting its functional obligations” as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
Midwest ISO Standards Collaborators	No	<p>To be consistent with other recently approved standards, we suggest changing “performing reliability-related tasks” to “meeting its functional obligations”. This is the language used in the recently approved R1 EOP-008-1 and then ties the requirement back to the functional model which is task specific.</p> <p>We do also note that the term System Operator includes generator operators in the definition. However, generator operators are not covered in the standard in a specific requirement. This could cause some confusion on exactly to whom that standard applies.</p>
<p>Response: The wording, “meeting its functional obligations” as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
SERC OC-SOS Standards Review Group	No	<p>Our group continues to believe that the term “competency” should not be used to describe an operator who has simply become certified through the NERC System Operator Certification Program. The certification process only assures that an operator is “capable” of perform reliability-related tasks. To deem the operator “competent” in performing such tasks, one would have to observe performance over a long period of time and under unexpected operating conditions. Changing the word “competency” to “capability” would make the statement above accurate.</p> <p>We also see the listing of specific technical areas under each requirement as problematic and prescriptive. By listing the areas, a process is set up that will potentially be very hard to manage. If a topic needs to be added or subtracted, the exam would be changed accordingly; however, then the standard would have to be changed, including creation of a SAR followed by industry comment, balloting periods, and approvals. The</p>

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Organization	Yes or No	Question 3 Comment
		<p>areas of capability for each function are all included in the certification exam requirements, and need not be listed in this draft standard. Furthermore, the fact that each technical area is numbered indicates that each one is a sub-requirement of the standard. Yet, there are no measures associated with the technical areas. So how can it be determined that an entity is compliant or non-compliant with this part of the standard? Our group suggests that the standard drafting team consider making the following changes to each of the three requirements:-- In the requirement statement, replace the word “competency” with “capability” and strike the phrase “in the areas listed”.-- Strike the section “Areas of Competency”. If these technical areas must be listed, change the heading to “Areas of Capability”, use bullets instead of numbers, and move to an appendix of this standard.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p>		
Southern Company	No	<p>We believe the term “competency” should be changed to “capability” to more accurately reflect the purpose of the statement. The certification process assures that an operator is “capable” of performing reliability related tasks, not that the operator is “competent” in performing those tasks. In order to determine “competency”, the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term “competency” should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term “competency” to “capability” in each of the three requirements</p> <p>We believe that listing the specific technical “Areas of Competency” under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the “Areas of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous</p>

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Organization	Yes or No	Question 3 Comment
		comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p>		
NextEra Energy	No	<p>Suggest the following edits to clarify further and be consistent with standards formatting:</p> <p>R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R1.1 below, by obtaining and maintaining a valid NERC Reliability Operator certificate (1[Risk Factor: High][Time Horizon: Real-time Operations]R1.1. Areas of competency (based on exam content outline) R1.1.1. Resource and demand balancing R1.1.2. Transmission operations R1.1.3. Emergency preparedness and operations R1.1.4. System operations R1.1.5. Protection and control R1.1.6. Voltage and reactive R1.1.7. Interchange scheduling and coordination R1.1.8. Interconnection reliability operations and coordination</p> <p>R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R2.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R2.2 below. (1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R2.1. Areas of competency (based on exam content outline) R2.1.1. Transmission operations R2.1.2. Emergency preparedness and operations R2.1.3. System operations R2.1.4. Protection and control R2.1.5. Voltage and reactive R2.2. Certificates R2.2.1 Reliability Operator R2.2.2 Balancing, Interchange and Transmission Operator R2.2.3 Transmission Operator</p> <p>R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R3.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R3.2 below.(1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R3.1. Areas of competency (based on exam content outline) R3.1.1. Resources and demand balancing R3.1.2. Emergency preparedness and operations R3.1.3. System operations R3.1.4. Interchange scheduling and coordination R3.2. Certificates R3.2.1 Reliability</p>

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Organization	Yes or No	Question 3 Comment
		Operator R3.2.2 Balancing, Interchange and Transmission Operator R3.2.3 Balancing and Interchange Operator
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. NERC no longer places an “R” in front of sub-requirements; and sub-requirements are now called “Parts” of a requirement.</p>		
FRCC Manager of Operations	No	<p>Suggest the following edits to clarify further and be consistent with standards formatting and capitalization of defined terms:</p> <p>R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R1.1 below, by obtaining and maintaining a valid NERC Reliability Operator certificate (1[Risk Factor: High][Time Horizon: Real-time Operations]R1.1. Areas of Ccompetency (based on exam content outline) R1.1.1. Resource and demand balancing R1.1.2. Transmission operations R1.1.3. Emergency preparedness and operations R1.1.4. System operations R1.1.5. Protection and control R1.1.6. Voltage and reactive R1.1.7. Interchange scheduling and coordination R1.1.8. Interconnection reliability operations and coordination</p> <p>R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R2.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R2.2 below. (1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R2.1. Areas of competency (based on exam content outline) R2.1.1. Transmission operations R2.1.2. Emergency preparedness and operations R2.1.3. System operations R2.1.4. Protection and control R2.1.5. Voltage and reactive R2.2. Certificates R2.2.1 Reliability Operator R2.2.2 Balancing, Interchange and Transmission Operator R2.2.3 Transmission Operator</p> <p>R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed in R3.1 below, by obtaining and maintaining one of the valid NERC certificates listed in R3.2 below.(1) : [Risk Factor: High][Time Horizon: Real-time Operations]: R3.1. Areas of competency (based on exam content outline) R3.1.1. Resources and demand balancing R3.1.2. Emergency preparedness and operations R3.1.3. System operations R3.1.4. Interchange scheduling and coordination R3.2. Certificates R3.2.1 Reliability Operator R3.2.2 Balancing, Interchange and Transmission Operator R3.2.3 Balancing and Interchange Operator</p>
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. NERC no longer places an “R” in front of sub-requirements; and sub-requirements are now called “Parts” of a requirement.</p>		

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Organization	Yes or No	Question 3 Comment
Duke Energy	No	<ul style="list-style-type: none"> o R1, R2 and R3 - Strike the phrase “in the areas listed” from each requirement, and delete Sections 1.1, 2.1 and 3.1. We believe that listing the Areas of Competency in these three requirements is unnecessary to satisfy the Order 693 directive, since the requirements clearly link competency to NERC certification, and the Operator Certification program documents list the Areas of Competencies. Also if the Areas of Competency were ever modified, then you’d have to generate a revision to the standard. We believe that incorporating them by reference is a better way. o If the SDT decides that the Areas of Competency must be listed in the standard, then they should be bulleted and not numbered like sub-requirements, because you can’t graduate VSLs for the requirement based upon them. o R2 and R3 - The Certificates should be included in the text of the requirements and not numbered like sub-requirements. If the Areas of Competency are deleted, then you could leave the Certificates under the requirements, but if so they should be bulleted and not numbered like sub-requirements. <p>Also, delete the phrase “Part 2.2” from the R2 VSL and delete the phrase “Part 3.2” from the R3 VSL.</p> <ul style="list-style-type: none"> o R1 and R2 Footnote - we agree with this clarifying footnote, but question whether it carries the same weight as if it were included as part of the requirements (i.e. could an entity still be found non-compliant for having a non-certified trainee learning or observing?).

Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.

The SDT appreciates your comments concerning the formatting used in the proposed draft standard. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.

Regarding your concern about sub-requirements and graduated VSLs, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency”.

Concerning your comment about the authority of the footnote, it is the SDT’s determination, based on the Standards Committee’s guidance, that the footnote would carry the same weight as the Requirement to which it is attached. Therefore, the answer to your question “could an entity still be found non-compliant for having a non-certified trainee learning or observing?” is no, you would not be found non-compliant. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a Real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate

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Organization	Yes or No	Question 3 Comment
responsibility for the performance of the reliability-related tasks”.		
San Diego Gas and Electric Co.	No	<p>In R2, “Transmission Operator reliability-related tasks” need to be clearly defined and/or identified.</p> <p>Additionally, the following insertions between brackets need to be made to the text: “. . . in the areas listed <in R2.1> by obtaining and maintaining one of the following valid NERC certificates <listed in R2.2>.</p>
<p>Response: The SDT believes that reliability-related tasks can vary from entity to entity, so the entity itself must identify the tasks that it considers to be reliability-related.</p> <p>While the SDT appreciates your suggestion, the SDT does not believe that making the modification you are suggesting would provide any additional clarity.</p>		
American Electric Power (AEP)	No	<p>AEP recommends that footnote number 1 should be removed from this standard. If it is to remain, AEP recommends that the language should be as follows: The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks. If our recommendations are not accepted, then the term "operating position" needs to be formally defined or removed.</p>
<p>Response: Your requested change could lead to the assumption that the intent of the footnote was to allow for one certification to cover more than one person performing reliability-related tasks. For example, some could assume that the Supervisor in a multi-person control center would be the only one required to hold a valid NERC certification and that the others in the room work directly under that person’s supervision. This is not what this drafting team intended. Each operator filling a Real-time position that performs reliability-related tasks must hold a NERC certificate. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more desks are managed by a System Operator possessing the minimum competencies to respond to the situation reliably.</p> <p>The SDT feels making the suggested modification would reduce clarity. The SDT believes the standard clearly identifies operating position through the use of the phrase “Real-time operating positions performing (applicable entity) reliability-related tasks”. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks”.</p>		
Entergy Services	No	<p>The requirements and measures both focus on the activity of achieving and maintaining certification at the appropriate certification level. The list of competencies are not needed. The exam working group determines the content of the exam, and the entity doesn't have control over that content, to ensure that the list of competencies included in the requirements are all covered in the exam to the degree needed. The list of minimum competencies should be removed from the requirements.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes</p>		

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Organization	Yes or No	Question 3 Comment
		<p>that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>
ERCOT ISO	No	<p>ERCOT ISO disagrees with the use of the word competency and thinks the word knowledge applies more appropriately. The current NERC certification tests knowledge and the ability to cognitively apply that knowledge to problems. As another alternative, ERCOT ISO agrees with the SRC comments to remove the word "competency" and reword the requirement as follows:"Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have obtained and maintain one of the following valid NERC certificates:".</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System. The NERC Certification exams do test a trainee's knowledge but they also require the trainee to apply that knowledge as part of the certification exam.</p>		
Brazos Electric Power Cooperative, Inc.	No	<p>The requirements should simply state "Each [operating entity] shall staff its Real-time operating positions performing [operating entity] reliability-related tasks with System Operators who have an appropriate and valid NERC certificate". The NERC certificate program by design establishes what the minimum competency is for each certificate type.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>		
US Bureau of Reclamation	No	<p>The definition of System Operators "An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time." includes Generator Operators. The only reason the definition is not consistent with the standard and should be modified to exclude Generator Operator.</p>

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Organization	Yes or No	Question 3 Comment
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
Covanta Energy	No	<p>The definition of “System Operator” includes “Generator Operator”, however generator operators are not covered in any specific requirement or applicability section in this standard. The term “Generator Operator” should be removed from the definition of “System Operator”, or specifically noted as "not applicable" for this standard, to remove any ambiguity in the implementation of this standard. The Generator Operator is the registered entity that is expected to meet the obligations documented in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
ATC	No	<p>Although ATC appreciates the drafting team’s attempt to provide clarity we disagree with the inclusion of the list of minimum competencies (Requirement 1.1, 2.1 and 3.1). An entity may be able to demonstrate the minimum competencies requirements by showing that all System Control Operators (SCO) have a valid NERC certificate, but we have major concerns that if an auditor asked for additional evidence an entity would not be able to comply. The NERC Certification test is developed and administered by the ERO (i.e. NERC). As a Registered Entity we have no ability to ensure that the minimum competency requirements are covered by the NERC Certification Test. But since they are identified as Requirements we are required to demonstrate compliance. NERC Standard PER-005 addresses the issue of continual education using a systematic approach to training. It is ATC strong opinion that the minimum competencies requirements be deleted from the standard and that NERC demonstrates to FERC that they address these minimum competencies in the NERC Certification exam. ATC believes that this standard should only require that SCO (RC, TOP and BA) be NERC Certified.</p>
<p>Response: Regarding your concern about sub-requirements, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads “A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency”.</p> <p>FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone</p>		

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Organization	Yes or No	Question 3 Comment
<p>maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is a separate effort underway to remove the reference to “Generator Operator” from the definition of System Operator.</p>		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>		
Consumers Energy	Yes	There is no need for footnote (1). Of particular concern is the phrase “at that position”. This can be taken quite literally to a qualified operator who is required to sit behind the trainee. Consumers contends the Trainee is sufficiently supervised by a NERC Certified Operator that has the responsibility for the position and is monitoring the position. There is no need for this addition.
<p>Response: The SDT intended the footnote to clarify that each individual in training must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably.</p>		
NIPSCO	Yes	Yes & no, it’s still vague who must be certified and in the SAR it was suggested that this issue be addressed as it relates to the 2006 unapproved interpretation. However, from a compliance point of view we’re not sure if this is a bad thing.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. However, the majority of the industry supported the SDT’s position on this subject.</p>		
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
FirstEnergy	Yes	

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Organization	Yes or No	Question 3 Comment
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	
Edward c. Stein	Yes	
Exelon	Yes	
The United Illuminating Company	Yes	
Manitoba Hydro	Yes	
South Carolina Electric and Gas	Yes	
Xcel Energy	Yes	
Oncor Electric Delivery	Yes	

4. The SDT has modified the Measure to better align with the Requirement(s). The Measure now reads “Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3):

M1.1 A list of Real-time operating positions.

M1.2 A list of System Operators assigned to its Real-time operating positions.

M1.3 A copy of each of its System Operator’s NERC certificate or NERC certificate number with expiration date.

M1.4 Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

Do you agree that the Measure is now better aligned with the Requirement(s)? If not, please explain in the comment area.

Summary Consideration:

The majority of the commenters felt that Measure M1.1 and M1.2 were redundant to Measure M1.4 and therefore should be eliminated and that Measure M1.3 should only require the System Operator’s name and certificate number. Measures M1.1, M1.2, M1.3 and M1.4 are all necessary because entities document their work schedules differently and these measures will ensure there is sufficient evidence to prove compliance. Regarding the comment suggesting that Measure M1.3 should only require the System Operator’s name and certificate number - the present wording allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. The measure is worded this way to allow an entity being audited to determine the method that best suits its needs. The Measure, as presently worded, allows an entity to use the method as described in their comment.

A few of the commenters wanted the word “competency” to be changed to “capability”. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The “Areas of Competency” as used in the proposed standard represent the most efficient and effective method for meeting the FERC Directive.

A couple commenters felt that Measure M1.1 should be removed since System Operators performing the same reliability-related function could have different titles at different entities. The SDT agrees that different entities could have different titles for the

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same function and that is why the entity itself needs to identify those operating positions that perform Real-time reliability-related tasks.

Organization	Yes or No	Question 4 Comment
Electric Market Policy	No	<p>Dominion recommends changes to the above sentence to read as follows; M1.3 System Operators name and NERC certificate number. Dominion believes providing a 'copy' of a certificate does not represent the validity of the certificate. The "proof" is the NERC certificate test results which NERC has on file internally. SO Name and certificate number should be sufficient.</p> <p>M1.1, M1.2, are redundant to M1.4. Eliminate M1.1 and M1.2. ET recommends changes to the above sentence to include 'NERC certified'M 1.4 Work schedules, work logs, or other equivalent evidence showing which 'NERC certified' System Operators were assigned to work in Real-time operating positions.</p>
<p>Response: M 1.3 allows for either "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date". This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p> <p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance.</p>		
SERC OC-SOS Standards Review Group	No	<p>In the Measure statement, the word "competency" should be changed to "capability" for the reasons given in our response to Question 3 above.</p> <p>For M 1.1, our group feels that maintaining a list of specific operating position titles as evidence may lead to confusion among the auditors. System operators who perform the same reliability functions will undoubtedly have different titles at different entities. These title differences could lead to unnecessary and lengthy discussions during the audit process. Our feeling is that the position title itself should not matter as long as an entity can show evidence that each operator is NERC-certified and in what specific credential.</p> <p>A good solution to streamline the measures and avoid confusion during an audit would be to fold both measures M 1.1 and M 1.2 into M 1.4. In M 1.4, add the phrase "NERC-certified" before "System Operators". The work schedules/work logs evidence required by M 1.4 will identify each operator assigned to perform Real-time reliability functions, as well as his/her Real-time operating position. M 1.1 & M 1.2 evidence is redundant and these measures can be eliminated.</p> <p>For M 1.3 - Our group strongly feels that maintaining a paper or electronic copy of each operator's actual NERC certificate is unnecessary and can be problematic, since only the operator has access to his/her actual certificate. Instead, the evidence of certification for System Operators should be simply a list of the certificate</p>

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Organization	Yes or No	Question 4 Comment
		<p>numbers and the issuance/expiration dates. If an employer does not have this information and cannot obtain it from the operator, the employer does have recourse to get confirmation from NERC that an individual holds a valid NERC certificate (Ref: p.14 of System Operator Certification Program Manual, updated November 2009). We realize that M 1.3 requires as evidence EITHER a copy OR the number/expiration date for the certificate; however the implication is that, if an actual copy cannot be produced, the entity is not complying as well with the standard as those entities that CAN produce a copy. This group feels that, for consistency and fairness to all entities, the certificate copy evidence should be eliminated. Therefore, we ask the standard drafting team to please consider changing the statement for M 1.3 to: M 1.3 NERC certificate number with expiration date for each System Operator.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The SDT agrees with you that the names of operating positions can vary from entity to entity, so the SDT believes the entity itself must identify those operating positions that perform Real-time reliability-related tasks.</p> <p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance.</p> <p>M1.3 allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p>		
Southern Company	No	<p>Again, in line with our comment on #3, we request that “competency” be changed to “capability”.</p> <p>M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures.</p> <p>M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined.</p> <p>To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure. M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just</p>

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Organization	Yes or No	Question 4 Comment
		<p>maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read "NERC certificate number with issuance & expiration date for each System Operator."</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The SDT agrees with you that the names of operating positions can vary from entity to entity, so the SDT believes the entity itself must identify those operating positions that perform Real-time reliability-related tasks.</p> <p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance.</p> <p>M1.3 allows for either "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date". This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p>		
NIPSCO	No	<p>No, "reliability related tasks" should be included in the measurements M1.1 & M1.2 since only the system operators performing such tasks need to be certified.</p>
<p>Response: The SDT believes that your suggested modification is already included in the Measure M1 and therefore does not need to be repeated in the sub-measures.</p>		
Duke Energy	No	<p>We believe M1.1 creates potential for confusion and should be deleted. It is not part of any of the requirements. M1.2, M1.3 and M1.4 are sufficient.</p>
<p>Response: The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their work schedules differently and this ensures that evidence is sufficient to prove compliance. The names of operating positions can vary from entity to entity; the entity must identify those operating positions that perform Real-time reliability-related tasks under M1.1 so that an auditor can determine whether "Real-time operating positions" were properly staffed.</p>		

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Organization	Yes or No	Question 4 Comment
San Diego Gas and Electric Co.	No	How about emergency exceptions? The previous version of this standard, PER-003-0, allows for emergency exceptions in M1.2.
<p>Response: The drafting team believes that the transition to the backup control center is covered by EOP-008-0 Requirement R1.8 and in EOP-008-1 Requirements R1, R3 and R4.</p>		
Entergy Services	No	M1.3 - It should not be necessary to provide a copy of the NERC certificate. A list of operators and certificate numbers and dates should be sufficient. NERC should be able to verify if the names and numbers are correct and current. I recommend that only the certificate number be required in M1.3
<p>Response: M1.3 allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. This was done to allow the entity being audited to determine the method that best suits its needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p>		
ERCOT ISO	No	As explained in its response to Question 3, ERCOT ISO disagrees with the use of the word “competency” and thinks the word “knowledge” applies more appropriately. ERCOT ISO agrees with the wording of the measures, as they apply to all the requirements.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p>		
Brazos Electric Power Cooperative, Inc.	No	Simplify by striking "demonstrated the applicable minimum competency by obtaining and maintaining" from the Measure.
<p>Response: The SDT believes that the phrase is needed in the measure to provide clarity to the industry. In addition, the SDT feels that this language directly supports the language used in the Requirement.</p>		
ATC	No	<p>Clarity should be provided in M1.1. Is this a list of positions that could perform real-time operating positions or a job description?</p> <p>In addition changing the statement to read “Each Reliability Coordinator, Transmission Operator and Balancing Authority may use the following evidence...” will indicate that the entity may use other evidence to demonstrate compliance and that these are only examples. The measures should not be prescriptive or limiting</p>
<p>Response: The Measure M1.1 clearly states “A list of Real-time operating positions”. If a job description provides enough information to provide an auditor with</p>		

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Organization	Yes or No	Question 4 Comment
<p>the information needed to show which Real-time operating positions need to have certified individuals performing the duties of that position, then you could use a job description.</p>		
<p>The SDT believes that the present wording of the Measure provides for the most consistent, efficient and effective way for an entity to show compliance.</p>		
Portland General Electric	Yes	PGE agrees with WECC Position Paper for the Ballot of PER-003-1 - Certifying System Operators
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>		
The United Illuminating Company	Yes	For clarity, consider modifying M1 to include the phrase performing reliability-related tasks, e.g A list of Real-time operating positions performing reliability-related tasks.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. The SDT believes that your suggested modification is already included in the Measure M1 and therefore does not need to be repeated in the sub-measures.</p>		
Northeast Power Coordinating Council	Yes	
Platte River Power Authority	Yes	
Bonneville Power Administration	Yes	
FirstEnergy	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
Midwest ISO Standards Collaborators	Yes	
NextEra Energy	Yes	
Independent Electricity System Operator	Yes	
Northeast Utilities	Yes	

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Organization	Yes or No	Question 4 Comment
Consumers Energy	Yes	
Edward c. Stein	Yes	
Exelon	Yes	
Manitoba Hydro	Yes	
South Carolina Electric and Gas	Yes	
Xcel Energy	Yes	
American Electric Power (AEP)	Yes	
FRCC Manager of Operations	Yes	
US Bureau of Reclamation	Yes	
Covanta Energy	Yes	
Oncor Electric Delivery	Yes	

5. Please provide any other comments (that you have not already provided in response to the questions above) that you have on the draft standard PER-003-1.

Summary Consideration: A few of the commenters felt the ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard and remove the competencies from the standard. T NERC, the ERO, currently provides the System Operator Certification Program on which this standard is based. T The System Operator Certification program, by design, is autonomous and t already included in the NERC Rules of Procedure. The SDT believes that placing a requirement in this standard for the ERO to provide this System Operator Certification Program would compromise the autonomy of this program and weaken the program.

One commenter stated that the SAR suggested that “grandfathering” be addressed but did not see it in this proposed standard. The SDT considered grandfathering at length during the initial standard drafting phase. The SDT determined, and the industry supported the SDT’s position, that grandfathering is not appropriate for this standard.

Another commenter felt that since the previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance, this version of the standard should contain variations in the VSLs. The SDT e believes the Requirements are binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with at least a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.

Some commenters restated their concerns with the inclusion of minimum competencies, the clarity of the footnote, the formatting used in the Requirements and the use of the term “System Operators”. The SDT restated its response to these concerns.

Organization	Yes or No	Question 5 Comment
MRO's NERC Standards Review Subcommittee		<p>The NSRS recommends that the requirements regarding the “minimum competencies” are misapplied to the functional entities. As stated in R1, R2, and R3 a System operator has to demonstrate minimum competencies that are obtained by a valid NERC Reliability Operator certificate. Applicable entities have no ability to know if these “areas of Competency” are adequately addressed within the NERC Certification Program (the test) or not. If the SDT believes that System Operators require a valid NERC Certificate to operate a Real-time position responsible for control of the BES, it should be simply stated.</p> <p>If not these Areas of Competency should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with staff that has</p>

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Organization	Yes or No	Question 5 Comment
		<p>been become certified and maintained that certification through NERC. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow requirements on the ERO. As an example, the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting includes many requirements on the ERO and is following the result-based approach.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it.</p>		
Midwest ISO Standards Collaborators		<p>The requirements regarding the minimum competencies are misapplied to the functional entities. They should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with staff that has become certified and maintained that certification through NERC. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow requirements on the ERO. As an example, the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting includes many requirements on the ERO and is following the results-based approach.</p>
<p>Response: NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>		
SERC OC-SOS Standards Review Group		<p>To better identify the operators to whom this standard applies, please consider changing the title of the standard to “Real-time Operating Personnel Credentials”</p>

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 5 Comment
		<p>To be consistent with other reliability standards, please consider adjusting the numbering of the measures to be the same as the numbering of the requirements.</p> <p>The standard drafting team is to be commended for their thoughtful consideration of comments from the last review cycle, and their response to every concern from the industry."The comments expressed herein represent a consensus of the views of the above named members of the SERC OC-SOS Standards Review Group only and should not be construed as the position of SERC Reliability Corporation, its board or its officers."</p>
<p>Response: The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard. The SDT believes that all three Requirements use the same method to demonstrate compliance and therefore did not feel it was necessary to repeat the Measure three times. If your comment concerns the formatting used in this standard, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p> <p>The SDT thanks you for your compliment.</p>		
Electric Market Policy		<p>Consider changing title of Standard to include "Real Time" Operating Personnel Credentials Standard. This would eliminate the potential ambiguity or perception requiring Transmission Planners and other support staff to be NERC certified.</p>
<p>Response: The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard.</p>		
Southern Company		<p>For consistency and to better identify the application of the standard, we suggest changing the title to "Real-time Operating Personnel Credentials"</p> <p>Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.</p>
<p>Response: The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard. The SDT believes that all three Requirements use the same method to demonstrate compliance and therefore did not feel it was necessary to repeat the Measure three times. If your comment concerns the formatting used in this standard, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p>		
ATC		<p>ATC recommends that the footnote be changed to read "Personnel learning or observing the tasks of an operating position must be under the direct supervision of a NERC Certified System Operator at that operating position who has the sole responsibility for the performance of the reliability-related task." Delete the words "non-NERC certified".ATC is concerned that the qualifying term "non-NERC Certified" is too</p>

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 5 Comment
		<p>prescriptive in identifying who qualifies as a trainee. Entities may have a trainee that is NERC Certified but has not been cleared to work the desk. The qualifying term (non-NERC Certified) would make it unnecessarily difficult for entities to identify those individuals as a trainee.</p>
<p>Response: Your requested change could lead to the assumption that the intent of the footnote was only to allow for trainees. The SDT does not believe that the present wording limits the trainee to non-certified personnel. The footnote is designed to limit the tasks that a non-NERC certified individual can independently perform. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks”.</p> <p>The SDT believes that in addition to achieving NERC certification, it is the entity's responsibility to determine when an individual (trainee) is qualified to fill a Real-time operating position.</p>		
Edward c. Stein		<p>The changes try to clarify the motherhood and apple pie statements. the real test will be how the Compliance people interpret and measure the standard</p>
<p>Response: The SDT thanks you for your clarifying comment.</p>		
NIPSCO		<p>In the context of NERC Reliability Standards we believe that Generator Operator should be removed from the System Operator definition. Throughout the standards and the SOCCED we think that System Operator includes only BA, RC & TOP.</p> <p>Also, it was suggested in the SAR that “grandfathering” be addressed and we don’t see that.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. There is another effort underway to modify the definition of “System Operator” to remove the reference to “Generator Operator.”</p> <p>The SDT considered grandfathering at length during the initial standard drafting phase. The SDT determined and the industry supported the SDT’s position that grandfathering was not appropriate for this standard.</p>		
San Diego Gas and Electric Co.		<p>Section D, #2 (Violation Severity Levels) -- there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.</p>
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set</p>		

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 5 Comment
of competencies sitting in each RC, TOP, and BA control room at all times.		
Xcel Energy		We continue to assert that listing the competencies here is ineffective. This standard should only list the certificates required for each function (e.g. BA, TOP, RC). The competencies should be outlined in the governing documents for the certification development. Entities have no control over what is contained within the exams to obtain those certificates, thus it is pointless to even list those competencies in the standard unless they are applicable to the entity and they can do something to affect compliance with those competencies listed. To address concerns about competencies, we also believe that PER-005 spells out that operators have requirements to identify reliability tasks and have demonstrated competency to those tasks.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p> <p>The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>		
FRCC Manager of Operations		Please see presponse to question 3. Thanks for the opportunity to comment.
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p>		
FirstEnergy		FE supports the changes and thanks the drafting team for their hard work on this project.
<p>Response: The SDT thanks you for your clarifying comment.</p>		
BGE		We support the clarification of PER-003 in this new revision. We also support the use of the NERC System Operator Certification Program as a manner in which to ensure that System Operators can demonstrate competency in the reliability-related tasks of their position.
<p>Response: The SDT thanks you for your clarifying comment.</p>		
ERCOT ISO		As explained in its response to Question 3, ERCOT ISO disagrees with the use of the word “competency” and thinks the word “knowledge” applies more appropriately. These requirements are part of the System Operator Certification and are assessed by the Personnel Certification Governance Committee (PCGC).
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of</p>		

Consideration of Comments on the Second Draft of PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Organization	Yes or No	Question 5 Comment
		<p>Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>
NextEra Energy		See question 3.
<p>Response: The SDT appreciates your comment. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff.</p>		
Consumers Energy		Please see comment #3.
<p>Response: The SDT intended the footnote to clarify that each individual in training must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably.</p>		

Consideration of Comments on Initial Ballot — Certifying System Operators (Project 2007-04) Date of Initial Ballot: September 14-24, 2010

Summary Consideration: An initial ballot of PER-003-1 was conducted from September 14-24, 2010 and achieved a quorum with 92.73% of the ballot pool returning a ballot, and with a weighted segment approval of 79.17%.

The majority of the negative comments indicated that minimum competencies should not be included in the standard. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The “Areas of Competency” as used in the proposed standard represents the most efficient and effective method identified for meeting this FERC directive. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program will use both now and in the future. In addition, recertification through training will also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.

Several balloters expressed concerns that the minimum competencies were not directly expressed in the measures. The “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.

Several balloters indicated that Measure M1.1 and M1.2 are redundant to Measure M1.4 and therefore should be eliminated and that Measure M1.3 should only require the System Operator’s name and certificate number. Measures M1.1, M1.2, M1.3 and M1.4 are all necessary because entities have different job titles for their System Operators, and entities document their work schedules differently and that these measures would ensure the evidence was sufficient to prove compliance. Regarding the comment suggesting that measure M1.3 should only require the System Operator’s name and certificate number, the present wording allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. The wording of the measure allows an audited entity to determine the method of demonstrating compliance that best suits its needs. The Measure, as presently worded, allows an entity to use the method proposed by balloters.

Several balloters questioned the formatting used in the Requirements. The formatting used in the Requirements of the proposed standard is consistent with the guidance provided by NERC staff. Sub-requirements are no longer preceded by a capital, “R” and are now called, “Parts” of a requirement, rather than “Sub-requirements.”

Some balloters indicated that the term “System Operator” either should not be used in the standard or should be re-defined to exclude Generator Operators in the NERC Glossary definition. While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate effort underway to remove “Generator Operator” from the definition of “System Operator.”

A couple balloters indicated that the footnote, as written, was either unclear or incorrect. Their particular concern was with the phrase “at that position” because it could be taken literally to mean a qualified operator is required to sit behind the trainee. The SDT intended the footnote to clarify that each individual in training must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably. In addition, a few balloters wanted the footnote either removed or re-worded to read “The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks”. The requested change could lead to the assumption that the intent of the footnote was to allow for one certification to cover more than one person performing reliability-related tasks.

Some entities could assume that the shift supervisor in a multi-person control room would be the only one required to hold a valid NERC certification and that the others in the room worked directly under that person’s supervision. This is not what was intended. Each System Operator filling a real-time position that performs reliability-related tasks must hold a valid NERC certificate. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more desks are managed by a System Operator possessing the minimum competencies to respond to the situation reliably. Making the suggested modification would reduce clarity. The standard clearly identifies the operating position through the use of the phrase “Real-time operating positions performing (applicable entity) reliability-related tasks”. However, the SDT modified the footnote to provide further clarity. The footnote now reads “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”

A few balloters indicated that the ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard and recommended removing the competencies from the standard. NERC, as the ERO, currently provides the System Operator Certification Program on which this standard is based. This certification program, by design, is autonomous and already included in the NERC Rules of Procedure. Placing a requirement in this standard for the ERO to provide this System Operator Certification Program would compromise the autonomy of the certification program and weaken it.

A couple balloters wanted to change the phrase “performing reliability-related tasks” to “meeting its functional obligations”. The phrase “meeting its functional obligations” as described in the functional model, could include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators. The SDT did not, therefore revise the standard in support of this suggestion.

Another couple of balloters indicated that this draft standard should contain variations in the VSLs. The requirements are binary in that the System Operator either holds the appropriate, valid certificate or does not. The Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with at least a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herbert Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

Voter	Entity	Segment	Vote	Comment
Rodney Phillips	Allegheny Power	1	Negative	This standard has not successfully answered the question of who is required to be certified.

Response: The SDT believes that the standard clearly states “...System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator...” must hold the appropriate, valid NERC certificate. Operating position titles can vary from entity to entity; therefore, the SDT feels the entity itself must identify those operating positions that perform Real-time reliability-related tasks.

¹ The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.
November 30, 2010

Voter	Entity	Segment	Vote	Comment
John Bussman	Associated Electric Cooperative, Inc.	1	Negative	<p>Associated Electric Cooperative Inc (AECI) agrees with what it believes to be the intent of Footnote 1. However, a strict letter of the law interpretation of the proposed wording might result in undesirable consequences. It would seem the footnote, as written, could be construed so that supervision would be required for only those trainees holding certification from an entity other than NERC. Trainees with no certification whatsoever would not be covered by the footnote and, therefore, no supervision would be required.</p> <p>Also, some initial training for potential System Operators could be “learning the tasks of a real-time operating position”, in a classroom or self study setting. This would not require direct supervision of a NERC Certified System Operator.</p> <p>AECI suggests some of the language from Measure M1.1 of the current standard could be incorporated to something like, “While in training, personnel without proper NERC certification may not perform any tasks of a real-time operating position except under the direct, continuous supervision and observation of the NERC Certified System Operator at that operating position. The NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>
<p>Response: The scope of this standard is limited to NERC certification. Therefore, the SDT has only addressed whether an individual is NERC certified or not NERC certified.</p> <p>The standard is not applicable to training provided in a classroom or self study setting. This standard only applies to Real-time operating positions performing reliability-related tasks.</p> <p>Your proposed wording from Measure M1.1 of the current standard introduces the possibility that an entity could misinterpret the standard to mean that if a non-NERC certified person performing the task has been determined by the entity to be fully trained, that trainee would not require “direct, continuous supervision and observation” to perform Real-time reliability-related tasks. The SDT feels that the revised footnote has sufficient clarity that would prohibit this situation. The present wording of the revised footnote is “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p>				

Voter	Entity	Segment	Vote	Comment
Scott Kinney	Avista Corp.	1	Negative	<p>Avista generally supports the modified standard but strongly believes that the addition of the competency section adds significant confusion and provides no value.</p> <p>There are no measures in the standard that address the competency requirements so the language doesn't add value. System Operator competency requirements are already addressed and measured in the NERC certification process and PER-005-1.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the "Areas of Competency" are not explicitly included in the Measure M1. However, the SDT believes that the "Areas of Competency" are implicitly included in Measure M1 by the statement "demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate".</p>				
Tony Kroskey	Brazos Electric Power Cooperative, Inc.	1	Negative	Additional clarification is needed.
<p>Response: The SDT thanks you for your comment. However, your comment does contain enough information for the SDT to respond.</p>				

Voter	Entity	Segment	Vote	Comment
Gordon Pietsch	Great River Energy	1	Negative	<p>The definition of "System Operator" in the NERC Glossary includes "Generator Operator", however generator operators are not covered in any specific requirement in the standard. We believe the term "Generator Operator" should be removed from the definition of "System Operator", or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. GRE believes that it is important to note that the Generator Operator is the Registered Entity that performs the functions as listed in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not the person operating the generator.</p> <p>If the drafting team believes that System Operators require a valid NERC Certificate to fill Real-time operating positions responsible for control of the BES and that they be certified through the NERC System Operator Certification Program and that these System Operators meet certain competencies then it should be a requirement of the ERO to develop a System Operator Certification program that includes these competencies where by obtaining the requisite certification the System Operator would have demonstrated these competencies. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow the ERO to be set as an applicable entity. An example of this is the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting which includes a number of requirements applicable to the ERO and is following the results-based approach.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is another effort underway to revise the definition of System Operator to remove the reference to "Generator Operator."</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Consideration of Comments on Initial Ballot of PER-003-1 – Operating Personnel Credentials (Project 2007-04)

Voter	Entity	Segment	Vote	Comment
Michael Moltane	International Transmission Company Holdings Corp	1	Negative	ITC is concerned with the use of the term "reliability-related tasks" in R2 and M1, a term also used in PER-005. By this going into place prior to PER - 005 implementation we may be forced to identify our reliability-related tasks a year earlier than PER-005 mandate.
Response: The SDT thanks you for your comment. However, regulatory approval and subsequent implementation of the reliability standard is outside the control of the SDT.				
Terry Harbour Christopher Schneider	MidAmerican Energy Co.	1 5	Negative	MidAmerican believes that if wording about "positions performing Transmission Operator reliability-related tasks" cannot be included or the PER-003 standard effective date must be extended out beyond the current PER-005 date to avoid incorrectly advancing NERC compliance on reliability related tasks already identified in a FERC Order.
Response: The SDT thanks you for your comment. However, regulatory approval and subsequent implementation of the reliability standard is outside the control of the SDT.				

Voter	Entity	Segment	Vote	Comment
Lawrence R. Larson	Otter Tail Power Company	1	Negative	<p>The proposed purpose statement does not align with the requirements as proposed, and the proposed measurements only focus on the Registered Entity (RE) ensuring each real-time operating position is staffed with properly NERC certified staff according to the function performed, with no reference of any measurements to the competency lists identified in each requirement. A NERC System operator certification credential does not alone guarantee operational competency. Competency encompasses a combination of knowledge, skills, and behaviors to perform a specific role.</p> <p>Furthermore the NERC System Operator Certification Program is a knowledge based assessment, as it does not clearly define the assessment of skills and behaviors related to the high-level competencies listed in the certification exam content outlines. This is further demonstrated by the Standard Drafting Team stating in consideration of comments received on the draft, under question 10A, that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations." The current verbiage leaves too much open for interpretation, and should be further defined to alleviate any inconsistency in the application and interpretation of this standard.</p> <p>This standard should focus on requiring System Operators (associated with RC, TOP and BA) to be NERC certified and should not address the competency list per function as a requirement of the RC, TOP, and BA Function. This standard should instead address this issue through the NERC system operator certification program as administered through the NERC Personnel Certification Governance Committee (PCGC). The PCGC has a well defined process that ensures the applicability of competencies to each credential through the use of job analysis, a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines.</p> <p>The defined requirements as listed 1 through 3 (with the omission of the competency lists) could stand, thus ensuring that the RE of the function is required to staff the real-time operating positions with individuals currently certified with the proper NERC Certificates as defined in each requirement.</p>
<p>Response: The drafting team believes that the NERC System Operator Certification Program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. With this in mind, the drafting team believes the purpose statement " To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System" is clear.</p>				

Voter	Entity	Segment	Vote	Comment
				<p>Note that while the first version of the System Operator Certification test was focused on recall or knowledge questions, and focused primarily on recall of Operating Policies, as the test has evolved there are more “application” type questions that do assess a System Operator’s ability to apply fundamental knowledge of dynamic operations to real-life operating scenarios to assess some aspects of the individual’s competence. No paper-and-pencil test can accurately assess the level of competence required to assume all the responsibilities of a System Operator – this level of competence is addressed in PER-005-1-System Personnel Training. The requirements in PER-003-1 focus on “minimum competencies” and those competencies were identified by administering a continent-wide job and task analysis.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p> <p>The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System. The drafting team also believes that experience, training, and skills demonstrations beyond the achievement of NERC Certification is a good business practice that is fulfilled by the recertification through the NERC Continuing Education Program in use by the NERC Certification Program.</p> <p>FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive.</p>

Voter	Entity	Segment	Vote	Comment
Catherine Koch	Puget Sound Energy, Inc.	1	Negative	<p>PSE appreciates the SDTs need to include the areas of competency described in R1.1 and R2.1 as directed by FERC. However the structure of these competencies are included leave the applicable entities in a vulnerable predicament as what is included in the NERC System Operator Certification program is not in their control. It could be that the program at some point doesn't meet the R1.1 and R2.1 leaving the entities to determine then how best to meet these requirements. We suggest at minimum, that NERC becomes an entity for this this standard is applicable (to be noted in the applicability section) and a sentence describing NERC's role in assuring these competencies are addressed in their program be added. There are other standards such as the CIP standards in which NERC is listed in the applicability section. This would seem to ensure a gap doesn't inadvertently develop.</p> <p>Additionally, the proposed standard uses several capitalized terms without proposing definitions for them, including "NERC System Operator Certification Program", "Reliability Operator, "Balancing, Interchange and Transmission Operator" and "Balancing and Interchange Operator." These terms still need to be defined within the standard at minimum or the NERC Glossary.</p> <p>Also the footnote formulation is different on p. 2 and p. 3. The formulation on p. 3 should be used in both places if we have to use one or the other, but an even better formulation is set forth in M1.1 of the current standard.</p> <p>Finally, a small issue is that the subsections to the requirements are not labeled with a preceeding "R" for consistency with other standards.</p>
<p>Response: The drafting team believes that the NERC System Operator Certification Program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. With this in mind, the drafting team believes the purpose statement " To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System" is clear.</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>The term NERC System Operator Certification Program is capitalized in the standard because it is the Title of the program in use by NERC for certifying system operators. The terms "Reliability Operator, "Balancing, Interchange and Transmission Operator" and "Balancing and</p>				

Voter	Entity	Segment	Vote	Comment
<p>Interchange Operator” are capitalized in the standard because they are the Titles of the certificates used by the NERC System Operator Certification Program. While this capitalization may not be consistent with the grammar rules for NERC Standards, it is consistent with the rules of grammar for the English language.</p> <p>The SDT thanks you for noticing the error between the two footnotes. The SDT has reworded the footnote to provide additional clarity. The present wording of the revised footnote is “Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.”</p> <p>The SDT appreciates your comments concerning the formatting used in the proposed draft standard. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. Sub-requirements are no longer preceded by a capital, “R” and are now called, “Parts” of a requirement, rather than “Sub-requirements.”</p>				
Richard McLeon	South Texas Electric Cooperative	1	Negative	STEC feels that all Reliability Coordinators, Transmission Operators, and Balancing Authorities should staff their real-time operating positions with System Operators who have demonstrated minimum competency by obtaining and maintaining a valid NERC Reliability Operator certificate.
<p>Response: The SDT recognizes that there are various organizational structures for the Real-time operating positions performing reliability-related tasks on the BES. This standard has been designed to fully utilize the flexibility provided by the NERC Certification Program.</p>				
Mark B Thompson	Alberta Electric System Operator	2	Negative	The requirements and measures should be reworded to eliminate the term “competency”. The competency lists should not be included in the standard. Competency is ensured by The Systematic Approach to Training required by PER-005, which requires that training programs are developed based on specific tasks.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a</p>				

Voter	Entity	Segment	Vote	Comment
valid NERC Certification has enhanced their ability to operate the Bulk Electric System.				
Jason L Marshall	Midwest ISO, Inc.	2	Negative	<p>The phrase "performing Reliability Coordinator reliability-related tasks" is a concern. We suggest to use the phrase "meeting its functional obligations" instead. The new version of EOP-008 uses similar wording to our proposal. In this way, it ties to what reliability tasks the standard applies directly back to the functional model.</p> <p>Furthermore, the functional model contains a list of reliability tasks. The competencies areas should apply to the ERO since it manages the certification program. Then there should be a requirement for functional entities to have NERC certified System Operators. This will ensure that the certification program only certifies that operators meet these competencies. The way the standard is currently written could allow the certification program to be deficient in some of the areas of competencies. There is a precedent that the new results based approach allows standards to have requirements that apply to the ERO. See the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting.</p>
<p>Response: The wording "meeting its functional obligations" as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
Bob Reeping	Allegheny Power	3	Negative	This standard has not successfully answered the question of who is required to be certified.
<p>Response: The SDT believes that the standard clearly states "...System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator..." must hold the appropriate, valid NERC certificate. Operating position titles can vary from entity to entity; therefore, the SDT feels the entity itself must identify those operating positions that perform Real-time reliability-related tasks.</p>				

Voter	Entity	Segment	Vote	Comment
Horace Stephen Williamson	Southern Company Services, Inc.	1	Negative	<p>Ref R1-3 We believe the term “competency” should be changed to “capability” to more accurately reflect the purpose of the statement. The certification process assures that an operator is “capable” of performing reliability related tasks, not that the operator is “competent” in performing those tasks. In order to determine “competency”, the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term “competency” should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term “competency” to “capability” in each of the three requirements.</p> <p>We believe that listing the specific technical “Areas of Competency” under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the “Areas of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements.</p> <p>Ref M1-4 Again, in line with our previous comment , we request that “competency” be changed to “capability”. M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures.</p> <p>M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently</p>
Richard J. Mandes	Alabama Power Company	3		
Anthony L Wilson	Georgia Power Company	3		
Gwen S Frazier	Gulf Power Company	3		
Don Horsley	Mississippi Power	3		

Voter	Entity	Segment	Vote	Comment
				<p>present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure.</p> <p>M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read “NERC certificate number with issuance & expiration date for each System Operator.”</p> <p>Additional For consistency and to better identify the application of the standard, we suggest changing the title to “Real-time Operating Personnel Credentials” Also for consistency with other standards, we suggest changing the measure numbering to directly reflect the corresponding requirement numbering.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>You are correct that the “Areas of Competency” are not explicitly included in the Measure M1. However, the SDT believes that the “Areas of Competency” are implicitly included in the Measure M1 by the statement “demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate”.</p> <p>The SDT appreciates your comments concerning the formatting used in the proposed draft standard. However, the formatting used in this draft standard is consistent with the guidance provided by NERC staff. Sub-requirements are no longer preceded by a capital, “R” and are now called, “Parts” of a requirement, rather than “Sub-requirements.”</p>				

Voter	Entity	Segment	Vote	Comment
<p>The SDT believes that Measures M1.1, M1.2, M1.3 and M1.4 are necessary because entities document their position titles and work schedules differently and this ensures that evidence is sufficient to prove compliance.</p> <p>M1.3 allows for either “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date”. This was done to allow the entity being audited to determine the method that best suits their needs. As written, the entity can choose the method you suggest of maintaining a list of NERC certificate numbers and the issuance/expiration dates associated.</p> <p>The SDT was given the title of the standard through the SAR process. The SDT believes that the title is appropriate with the content of the standard.</p>				
<p>Charles A. Freibert</p> <p>Daryn Barker</p>	<p>Louisville Gas and Electric Co.</p>	<p>3</p> <p>6</p>	<p>Negative</p>	<p>Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
<p>John S Bos</p>	<p>Muscatine Power & Water</p>	<p>3</p>	<p>Negative</p>	<p>There is no way for a Registered Entity to ensure minimum competencies are obtained through a NERC Certification test. NERC controls what is on each individual test, not the Registered Entity. To put the burden of obtaining minimum competency on the Registered Entity based on what is on the NERC Certification test, simply is unjust.</p>

Voter	Entity	Segment	Vote	Comment
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
<p>Scott Peterson</p>	<p>San Diego Gas & Electric</p>	<p>3</p>	<p>Negative</p>	<ol style="list-style-type: none"> 1. The term "NERC System Operator Certification Program" needs to be defined. 2. In R2, "Transmission Operator reliability-related tasks" need to be clearly defined and/or identified. Additionally, the following insertions (in bold red) need to be made to the text: ". . . in the areas listed in R2.1 by obtaining and maintaining one of the following valid NERC certificates listed in R2.2". 3. Measures: How about emergency exceptions? The previous version of this standard, PER-003-0, allows for emergency exceptions in M1.2 during control center transfers. 4. Violation Severity Levels - there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.
<p>Response: The NERC System Operator Certification Program is a defined program in both the Rules of Procedure Section 600 & Appendix 6, System Operator Certification Program Manual.</p> <p>The SDT believes that reliability-related tasks can vary from entity to entity, so the entity itself must identify the tasks that it considers to be reliability-related. While the SDT appreciates your suggestion, the SDT does not believe that making the modification you are suggesting would provide any additional clarity.</p> <p>The drafting team believes that the transition to the backup control center is covered by EOP-008-0 Requirement R1.8 and in EOP-008-1 Requirements R1, R3 and R4.</p> <p>The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.</p>				

Voter	Entity	Segment	Vote	Comment
Kenneth Goldsmith	Alliant Energy Corp. Services, Inc.	4	Negative	<p>The definition of System Operator includes "Generator Operator", however Generator Operators is not included in any specific requirement in the standard. We believe the term "Generator Operator" should be removed from the definition of System Operator, or specifically noted as to not be applicable for this standard, to remove any ambiguity in the implementation of this standard.</p> <p>The requirements regarding the minimum competencies are misapplied to the functional entities. They should apply to the ERO. The ERO should be required to create and maintain a certification program that meets the minimum competencies identified within the standard. Then the functional entities should simply be required to staff their System Operator positions with personnel who have become certified and maintain that certification through NERC.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate project underway working to revise the definition of "System Operator" to remove the reference to "Generator Operator."</p> <p>NERC, the ERO, currently provides the System Operator Certification program on which this standard is based. This program, by design, is autonomous. This program is already included in the NERC Rules of Procedure. Placing a requirement in a standard for the ERO to provide this System Operator Certification program compromises the autonomy of this program and weakens it. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Voter	Entity	Segment	Vote	Comment
Joseph G. DePoorter	Madison Gas and Electric Co.	4	Negative	<p>Recommends that the SDT changes “performing reliability-related tasks” to “meeting its functional obligations” to reflect recent changes made to other approved standards.</p> <p>In addition, the definition of “System Operator” includes “Generator Operator”, however generator operators are not covered in any specific requirement in the standard. Believe the term “Generator Operator” should be removed from the definition of “System Operator”, or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. Would also like to point out the Generator Operator is the Registered Entity that meet the obligations set in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not a person operating a generator.</p> <p>Recommends that the requirements regarding the “minimum competencies” are misapplied to the functional entities. As stated in R1, R2, and R3 a System operator has to demonstrate minimum competencies that are obtained by a valid NERC Reliability Operator certificate. Applicable entities have no ability to know if these “areas of Competency” are adequately addressed within the NERC Certification Program (the test) or not. If the SDT believes that System Operators require a valid NERC Certificate to operate a Real-time position responsible for control of the BES, it should be simply stated.</p>
<p>Response: The wording “meeting its functional obligations” as described in the functional model, may include tasks that are not reliability-related and also tasks that are not required to be performed by System Operators; therefore the SDT does not see a need to revise the standard.</p> <p>While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression “(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator),” the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate project underway working to revise the definition of “System Operator” to remove the reference to “Generator Operator.”</p> <p>FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Voter	Entity	Segment	Vote	Comment
Henry E. LuBean	Public Utility District No. 1 of Douglas County	4	Negative	<p>Competency requirements and measures are not stated properly and are too difficult to measure adequately. Competency should be determined based on whether certification has been obtained or not in this industry. Each entity must determine whether a person is qualified to work as a system operator and this should not be based on whether competency is declared by some number of hours obtained in a classroom; it would help in determining full qualification but not to prevent it; certification can help in determining qualification but an undefined competency rule just compounds the issue unnecessarily.</p> <p>As for VSLs, being certified (and competent?) or not may or may not directly affect the BPS (BES) and therefore should not be at the highest level; medium or lower would be better. This issue is not as black or white as is a SOL violation and shouldn't be held to the same level of violation or penalty.</p>
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p> <p>The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL." VRFs assess the criticality of a requirement with respect to reliability – VSLs assess the degree of noncompliance.</p>				
Daniel Mason	City and County of San Francisco	5	Negative	<p>As reflected in many pre-ballot comments, there is no need for competencies to be included in this standard. Registered Entities have no authority over the areas of competency demonstrated by obtaining and maintaining a valid NERC System Operator certificate. This standard should only require the applicable Registered Entity to staff its Real-time operating positions which are responsible for the control of the Bulk Electric System, with System Operators who possess the appropriate current and valid NERC System Operator certificate. Including competencies in PRC-003-1 only creates potential interpretation issues, added cost of compliance, with no obvious reliability benefit.</p>

Voter	Entity	Segment	Vote	Comment
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
David A. Lapinski	Consumers Energy	3	Negative	<p>We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.</p>
David Frank Ronk		4		
James B Lewis		5		
<p>Response: The SDT intended the footnote to clarify that each trainee must work under the immediate direction of the System Operator who holds a valid NERC certificate, located at the Real-time operating position and responsible for performing reliability-related tasks. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more operating positions are managed by an operator possessing the minimum competencies to respond to the situation reliably.</p> <p>Based on stakeholder comments, the SDT has revised the footnote to provide additional clarity. The present wording of the revised footnote is "Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p>				
Martin Bauer P.E.	U.S. Bureau of Reclamation	5	Negative	<p>The standard language is not consistent with the definition of System Operator. System Operator includes Generator Operator. The standard did not modify the definition of the System Operator to eliminate the inconsistency.</p>
<p>Response: While the definition of the term System Operator in the NERC Glossary includes the parenthetical expression "(Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator)," the applicability of the standard is clearly stated to be Reliability Coordinator, Balancing Authority, and Transmission Operator. In addition, there is a separate project underway working to revise the definition of "System Operator" to remove the reference to "Generator Operator."</p>				

Voter	Entity	Segment	Vote	Comment
Paul B. Johnson	American Electric Power	1	Negative	AEP recommends that footnote number 1 should be removed from this standard. If it is to remain, AEP recommends that the language should be as follows: The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks. If our recommendations are not accepted, then the term "operating position" needs to be formally defined or removed.
Raj Rana	American Electric Power	3		
Brock Ondayko	AEP Service Corp.	5		
Edward P. Cox	AEP Marketing	6		
<p>Response: Your requested change could lead to the assumption that the intent of the footnote was to allow for one certification to cover more than one person performing reliability-related tasks. For example, some could assume that the Supervisor in a multi-person control room would be the only one required to hold a valid NERC certification and that the others in the room could work directly under that person's supervision. This is not what this drafting team intended. Each System Operator filling a real-time position that performs reliability-related tasks must hold a NERC certificate. This is necessary to ensure that all potential threats to the Bulk Electric System that occur simultaneously at one or more desks are managed by a System Operator possessing the minimum competencies to respond to the situation reliably.</p> <p>The SDT feels making the suggested modification would reduce clarity. The SDT believes the standard clearly identifies the meaning of "operating position" through the use of the phrase "Real-time operating positions performing (applicable entity) reliability-related tasks". However, the SDT modified the footnote to provide further clarity. The footnote now reads "Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks."</p>				
Joseph O'Brien	Northern Indiana Public Service Co.	6	Negative	See comments submitted under "Posted for Comment"
<p>Response: The SDT thanks you for your comment. Please refer to the SDT's responses to your comments referenced.</p>				
Alan R. Johnson	NRG Energy, Inc.	6	Negative	The standard fails to mention anything about restricting support personnel from being able to perform certain actions, such as control. EMS system support personnel can always use tools to manipulate database parameters, allowing themselves control ability. They all have database tools that are needed to manipulate systems in times of emergency support. The standard should address this.

Voter	Entity	Segment	Vote	Comment
<p>Response: This standard applies to Real-time operating positions. Support personnel should be prohibited by the responsible entity from operating any equipment in Real-time in accordance with the CIP standards.</p>				
Gregory L Pieper	Xcel Energy, Inc.	1	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
Michael Ibold		3		
David F. Lemmons		6		
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
John J. Moraski	Baltimore Gas & Electric Company	1	Affirmative	(See comment form for BGE comments)
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. Please refer to the SDT's response to the aforementioned comments.</p>				
Frank F. Afranji	Portland General Electric Co.	1	Affirmative	I agree with the changes proposed.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>				
Richard J Kafka	Potomac Electric Power Co.	1	Affirmative	There are some minor improvements possible: Section 2.1 should be renamed "Reliability-related Tasks" and the subjects "Protection and Control" and "Voltage and Reactive" should be more specific.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high</p>				

Voter	Entity	Segment	Vote	Comment
<p>enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System. Note that the topics listed under the "Areas of Competency" in the standard are identical to the content areas identified in the associated certification exam.</p>				
Richard Salgo	Sierra Pacific Power Co.	1	Affirmative	<p>In boiling down each of the three requirements, it is clear that the metric of compliance with each is that the System Operator obtain and maintain a valid NERC certification. The language, however, indicates that the System Operator must have "demonstrated minimum competency" in various areas. It is understood that this is a requirement of FERC Order 693, yet we are concerned that some yet to be defined demonstration criteria may be required in subsequent compliance audits beyond the mere evidence of certification. We would like clarification that audit evidence of compliance with this Standard will be limited to the specific items in section M1.1 through M1.4.</p>
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. The SDT believes that the requirement's phrase, ". . . System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC . . . certificate" is clear that the metric for demonstrating competency is the applicable certificate.</p>				
Ballard Keith Mutters	Orlando Utilities Commission	3	Affirmative	<p>It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected.</p>
<p>Response: The SDT believes that the requirement's phrase, ". . . System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC . . . certificate" is clear that the metric for demonstrating competency is the applicable certificate. In addition, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency".</p>				

Voter	Entity	Segment	Vote	Comment
Brad Chase	Orlando Utilities Commission	1	Abstain	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Richard Kinas		5	Affirmative	
<p>Response: The SDT believes that the requirement's phrase, ". . . System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC . . . certificate" is clear that the metric for demonstrating competency is the applicable certificate. In addition, the SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency".</p>				
James R. Keller	Wisconsin Electric Power Marketing	3	Affirmative	The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1.
Anthony Jankowski	Wisconsin Energy Corp.	4		
Linda Horn	Wisconsin Electric Power Co.	5		
<p>Response: The SDT thanks you for your affirmative response and clarifying comment. The standard has only one measure that is covered by the Data Retention section.</p>				
Dennis Sismaet	Seattle City Light	6	Affirmative	Appropriate to change the language to indicate NERC certification as the requirement.
<p>Response: The SDT thanks you for your affirmative response and clarifying comment.</p>				

Voter	Entity	Segment	Vote	Comment
James A Maenner		8	Affirmative	Listing Areas of Competency and Certificates as requirements in the standard does not add much value. Necessary competencies and applicable certificates are described in the NERC System Operator Certification Program manual and are established through the ERO not by individuals required to be certified. In addition, including Areas of Competency and Certificates in the standard may require revisions to the standard when updated in the program.
<p>Response: FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
Danny McDaniel	Cleco Power LLC	1	Affirmative	None
Michelle A Corley	Cleco Corporation	3	Affirmative	None
Stephanie Huffman	Cleco Power	5	Affirmative	None
Robert Hirschak	Cleco Power LLC	6	Affirmative	None

Standards Announcement Initial Ballot Window Open September 14-24, 2010

Now available at: <https://standards.nerc.net/CurrentBallots.aspx>

Project 2007-04: Certifying System Operators

An initial ballot window for standard PER-003-1 — Operating Personnel Credentials is open **until 8 p.m. Eastern on Friday, September 24, 2010.**

In addition, members of this ballot pool will be able to vote in a concurrent non-binding poll on the standard's Violation Risk Factors (VRFs) and Violation Severity Levels (VSLs). Members who joined the ballot pool to vote on the standard were automatically entered in a separate pool to participate in the non-binding poll for the VRFs and VSLs. The non-binding poll will appear in your list of current ballots, and is labeled accordingly.

Instructions

Members of the ballot pools associated with this project may log in and submit their votes on the following page: <https://standards.nerc.net/CurrentBallots.aspx>

Transition from Reliability Standards Development Procedure Version 7 – to Standard Processes Manual

Under the Reliability Standards Development Procedure Version 7, consensus was built with successive formal comment periods, followed by a 30-day pre-ballot review, followed by an initial ballot, and then a recirculation ballot. The intent was to use stakeholder views submitted through the formal comment periods to achieve consensus, and then to confirm that consensus during the balloting. This process did not allow a drafting team to make any changes to a standard between ballots, which incented teams to avoid making improvements once a standard had gone through an initial ballot. If a team made a change between ballots, then the standard was required to be posted for a new comment period, and then another pre-ballot review and another initial ballot, and finally if there were no more changes made to the standard, a recirculation ballot was conducted to confirm consensus.

Under the new Standard Processes Manual, consensus is achieved through parallel comment and ballot periods. Successive comment and ballot periods are conducted until there is consensus – and then a recirculation ballot is conducted to confirm that consensus. There is no 30-day pre-ballot review period, and drafting teams are encouraged to make revisions to the standard between successive ballots to improve the quality of the standard.

Next Steps

The drafting team will consider all comments (those submitted with a comment form, and those submitted with a ballot) and will determine whether to make additional changes to the standard. The team will post the initial ballot results and its response to comments.

- If the standard needs significant modifications, the team will post the revised standard for a new 30-day

comment period and will conduct a new ballot (called a “successive” ballot) during the last 10 days of that comment period. The team will post its response to all comments, and then proceed (if the standard needs no significant changes) to a recirculation ballot. During a successive ballot, all members of the ballot pool must cast a new ballot, as the standard presented has significant changes.

- If the initial ballot and parallel comment period show that the standard needs either minor or no changes, the team will post the standard and conduct a 10-day recirculation ballot. During a recirculation ballot, members of the ballot pool may cast a new vote but are not required to do so as the standard presented does not have any significant changes.

Project Background

PER-003-0, a “Version 0” standard, requires each Reliability Coordinator, Balancing Authority, and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential. The standard is being revised to address the directives from FERC Order 693 and industry comments from Version 0.

Further details are available on the project page:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Applicability of Standards in Project

Balancing Authority

Reliability Coordinator

Transmission Operator

Standards Process

The [Standard Processes Manual](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

*For more information or assistance, please contact Monica Benson,
Standards Process Administrator, at monica.benson@nerc.net or at 609.452.8060.*

North American Electric Reliability Corporation
116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

Non-binding Poll Name:	Project 2007-04 - Certifying System Operators - PER-003 - Non-binding Poll for VRFs and VSLs
Poll Period:	9/14/2010 - 9/24/2010
Total # Opinions:	207
Total Ballot Pool:	289
Summary Results:	86% of those who registered to participate provided an opinion; 83% of those who provided an opinion indicated support for the VRFs and VSLs that were proposed.

Segment	Organization	Member	Opinion	Comments
1	Allegheny Power	Rodney Phillips	Negative	View
1	Ameren Services	Kirit S. Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Negative	View
1	American Transmission Company, LLC	Jason Shaver	Negative	
1	Arizona Public Service Co.	Robert D Smith	Affirmative	
1	Associated Electric Cooperative, Inc.	John Bussman	Negative	View
1	Avista Corp.	Scott Kinney	Negative	View
1	Baltimore Gas & Electric Company	John J. Moraski	Affirmative	View
1	BC Transmission Corporation	Gordon Rawlings	Affirmative	
1	Beaches Energy Services	Joseph S. Stonecipher	Abstain	
1	Black Hills Corp	Eric Egge	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	
1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Negative	View
1	CenterPoint Energy	Paul Rocha	Negative	
1	Central Maine Power Company	Brian Conroy	Affirmative	
1	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Chang G Choi	Affirmative	
1	City of Vero Beach	Randall McCamish	Affirmative	
1	Clark Public Utilities	Jack Stamper	Affirmative	
1	Cleco Power LLC	Danny McDaniel	Affirmative	View
1	Colorado Springs Utilities	Paul Morland	Affirmative	
1	Commonwealth Edison Co.	Gregory Campbell	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Affirmative	

1	Dairyland Power Coop.	Robert W. Roddy	Affirmative	
1	Dominion Virginia Power	John K Loftis	Affirmative	
1	Duke Energy Carolina	Douglas E. Hills	Affirmative	
1	E.ON U.S.	Larry Monday	Negative	
1	East Kentucky Power Coop.	George S. Carruba	Affirmative	
1	Empire District Electric Co.	Ralph Frederick Meyer	Negative	
1	Entergy Corporation	George R. Bartlett	Affirmative	
1	FirstEnergy Energy Delivery	Robert Martinko	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Affirmative	
1	Georgia Transmission Corporation	Harold Taylor, II		
1	Great River Energy	Gordon Pietsch	Negative	View
1	Hoosier Energy Rural Electric Cooperative, Inc.	Robert Solomon	Affirmative	
1	Hydro One Networks, Inc.	Ajay Garg	Affirmative	
1	Hydro-Quebec TransEnergie	Bernard Pelletier	Affirmative	
1	International Transmission Company Holdings Corp	Michael Moltane	Negative	View
1	Kansas City Power & Light Co.	Michael Gammon	Affirmative	
1	Lake Worth Utilities	Walt Gill	Affirmative	
1	Lakeland Electric	Larry E Watt	Affirmative	
1	Lee County Electric Cooperative	John W Delucca	Affirmative	
1	Long Island Power Authority	Robert Ganley	Affirmative	
1	Manitoba Hydro	Michelle Rheault	Affirmative	
1	MEAG Power	Danny Dees	Abstain	
1	MidAmerican Energy Co.	Terry Harbour	Negative	View
1	Minnkota Power Coop. Inc.	Richard Burt	Abstain	
1	National Grid	Saurabh Saksena	Affirmative	
1	Nebraska Public Power District	Richard L. Koch	Affirmative	
1	New Brunswick Power Transmission Corporation	Randy MacDonald	Affirmative	
1	New York State Electric & Gas Corp.	Henry G. Masti		
1	Northeast Utilities	David H. Boguslawski	Affirmative	
1	Northern Indiana Public Service Co.	Kevin M Largura	Negative	
1	NorthWestern Energy	John Canavan	Affirmative	
1	Ohio Valley Electric Corp.	Robert Matthey	Negative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber	Affirmative	
1	Omaha Public Power District	Douglas G Peterchuck	Affirmative	
1	Oncor Electric Delivery	Michael T. Quinn	Affirmative	
1	Orlando Utilities Commission	Brad Chase	Abstain	View
1	Otter Tail Power Company	Lawrence R. Larson	Negative	View
1	Pacific Gas and Electric Company	Chifong L. Thomas	Affirmative	

1	PacifiCorp	Mark Sampson	Affirmative	
1	PECO Energy	Ronald Schloendorn	Affirmative	
1	Platte River Power Authority	John C. Collins	Affirmative	
1	Portland General Electric Co.	Frank F. Afranji	Affirmative	View
1	Potomac Electric Power Co.	Richard J Kafka	Affirmative	View
1	PPL Electric Utilities Corp.	Brenda L Truhe	Affirmative	
1	Progress Energy Carolinas	Sammy Roberts	Affirmative	
1	Public Service Company of New Mexico	Laurie Williams	Affirmative	
1	Public Service Electric and Gas Co.	Kenneth D. Brown	Affirmative	
1	Puget Sound Energy, Inc.	Catherine Koch	Negative	View
1	Rochester Gas and Electric Corp.	John C Allen	Abstain	
1	Sacramento Municipal Utility District	Tim Kelley	Affirmative	
1	Salt River Project	Robert Kondziolka	Affirmative	
1	Santee Cooper	Terry L. Blackwell	Affirmative	
1	SCE&G	Henry Delk, Jr.	Affirmative	
1	Seattle City Light	Pawel Krupa	Affirmative	
1	Sierra Pacific Power Co.	Richard Salgo	Affirmative	View
1	South Texas Electric Cooperative	Richard McLeon	Negative	View
1	Southern California Edison Co.	Dana Cabbell	Affirmative	
1	Southern Company Services, Inc.	Horace Stephen Williamson	Negative	View
1	Southwest Transmission Cooperative, Inc.	James L. Jones	Affirmative	
1	Southwestern Power Administration	Gary W Cox	Affirmative	
1	Sunflower Electric Power Corporation	Noman Lee Williams	Affirmative	
1	Tampa Electric Co.	Beth Young	Negative	
1	Tennessee Valley Authority	Larry Akens	Affirmative	
1	Tri-State G & T Association, Inc.	Keith V. Carman	Affirmative	
1	Tucson Electric Power Co.	John Tolo	Affirmative	
1	United Illuminating Co.	Jonathan Appelbaum	Abstain	
1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Xcel Energy, Inc.	Gregory L Pieper	Negative	View
2	Alberta Electric System Operator	Mark B Thompson	Negative	View
2	BC Hydro	Venkataramakrishnan Vinnakota		
2	California ISO	Gregory Van Pelt	Affirmative	
2	Electric Reliability Council of	Chuck B Manning		

	Texas, Inc.			
2	Independent Electricity System Operator	Kim Warren	Affirmative	
2	ISO New England, Inc.	Kathleen Goodman	Affirmative	
2	Midwest ISO, Inc.	Jason L Marshall	Negative	View
2	New Brunswick System Operator	Alden Briggs	Affirmative	
2	New York Independent System Operator	Gregory Campoli		
2	PJM Interconnection, L.L.C.	Tom Bove	Affirmative	
2	Southwest Power Pool	Charles H Yeung	Negative	View
3	Alabama Power Company	Richard J. Mandes	Negative	View
3	Allegheny Power	Bob Reeping	Negative	View
3	Ameren Services	Mark Peters	Affirmative	
3	American Electric Power	Raj Rana	Negative	View
3	Anaheim Public Utilities Dept.	Kelly Nguyen		
3	APS	Steven Norris	Affirmative	
3	Atlantic City Electric Company	James V. Petrella	Affirmative	
3	BC Hydro and Power Authority	Pat G. Harrington	Affirmative	
3	Blue Ridge Power Agency	Duane S. Dahlquist	Affirmative	
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	
3	City of Clewiston	Lynne Mila	Affirmative	
3	City of Farmington	Linda R. Jacobson	Affirmative	
3	City of Green Cove Springs	Gregg R Griffin		
3	City of Leesburg	Phil Janik	Affirmative	
3	Cleco Corporation	Michelle A Corley	Affirmative	View
3	ComEd	Bruce Krawczyk	Affirmative	
3	Consolidated Edison Co. of New York	Peter T Yost	Affirmative	
3	Constellation Energy	Carolyn Ingersoll		
3	Consumers Energy	David A. Lapinski	Negative	View
3	Cowlitz County PUD	Russell A Noble	Affirmative	
3	Delmarva Power & Light Co.	Michael R. Mayer	Affirmative	
3	Dominion Resources Services	Michael F Gildea	Affirmative	
3	Duke Energy Carolina	Henry Ernst-Jr	Affirmative	
3	East Kentucky Power Coop.	Sally Witt	Affirmative	
3	Entergy	Joel T Plessinger	Affirmative	
3	FirstEnergy Solutions	Kevin Querry	Affirmative	
3	Florida Power Corporation	Lee Schuster	Affirmative	
3	Georgia Power Company	Anthony L Wilson	Negative	View
3	Georgia System Operations Corporation	R Scott S. Barfield-McGinnis	Affirmative	
3	Great River Energy	Sam Kokkinen	Negative	
3	Gulf Power Company	Gwen S Frazier	Negative	View
3	Hydro One Networks, Inc.	Michael D. Penstone	Affirmative	

3	Kansas City Power & Light Co.	Charles Locke	Affirmative	
3	Kissimmee Utility Authority	Gregory David Woessner	Affirmative	
3	Louisville Gas and Electric Co.	Charles A. Freibert	Negative	View
3	Manitoba Hydro	Greg C Parent	Affirmative	
3	MidAmerican Energy Co.	Thomas C. Mielnik	Negative	
3	Mississippi Power	Don Horsley	Negative	View
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Abstain	
3	Muscatine Power & Water	John S Bos	Negative	View
3	Nebraska Public Power District	Tony Eddleman	Affirmative	
3	New York Power Authority	Marilyn Brown	Affirmative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Affirmative	
3	Northern Indiana Public Service Co.	William SeDoris	Negative	
3	Orlando Utilities Commission	Ballard Keith Mutters	Affirmative	View
3	PacifiCorp	John Apperson	Affirmative	
3	PECO Energy an Exelon Co.	Vincent J. Catania	Affirmative	
3	Platte River Power Authority	Terry L Baker	Affirmative	
3	PNM Resources	Michael Mertz	Affirmative	
3	Potomac Electric Power Co.	Robert Reuter	Negative	
3	Progress Energy Carolinas	Sam Waters	Affirmative	
3	Public Service Electric and Gas Co.	Jeffrey Mueller	Affirmative	
3	Sacramento Municipal Utility District	James Leigh-Kendall	Affirmative	
3	Salt River Project	John T. Underhill	Affirmative	
3	San Diego Gas & Electric	Scott Peterson	Negative	View
3	Santee Cooper	Zack Dusenbury	Affirmative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	South Carolina Electric & Gas Co.	Hubert C. Young	Affirmative	
3	Tacoma Public Utilities	Travis Metcalfe	Affirmative	
3	Tampa Electric Co.	Ronald L Donahey	Negative	
3	Tennessee Valley Authority	Ian S Grant	Affirmative	
3	Wisconsin Electric Power Marketing	James R. Keller	Affirmative	View
3	Xcel Energy, Inc.	Michael Ibold	Negative	View
4	Alliant Energy Corp. Services, Inc.	Kenneth Goldsmith	Negative	View
4	American Municipal Power - Ohio	Kevin Koloini	Negative	
4	City of Clewiston	Kevin McCarthy	Affirmative	
4	City of New Smyrna Beach Utilities Commission	Timothy Beyrle	Affirmative	

4	Consumers Energy	David Frank Ronk	Negative	View
4	Cowlitz County PUD	Rick Syring	Affirmative	
4	Fort Pierce Utilities Authority	Thomas W. Richards	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Affirmative	
4	Integrus Energy Group, Inc.	Christopher Plante	Abstain	
4	LaGen	Richard Comeaux	Abstain	
4	Madison Gas and Electric Co.	Joseph G. DePoorter	Negative	View
4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Public Utility District No. 1 of Douglas County	Henry E. LuBean	Negative	View
4	Sacramento Municipal Utility District	Mike Ramirez	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R Wallace	Affirmative	
4	South Mississippi Electric Power Association	Steve McElhaney	Affirmative	
4	Tacoma Public Utilities	Keith Morissette	Affirmative	
4	Wisconsin Energy Corp.	Anthony Jankowski	Affirmative	View
5	AEP Service Corp.	Brock Ondayko	Negative	View
5	Amerenue	Sam Dwyer	Affirmative	
5	APS	Mel Jensen	Affirmative	
5	BC Hydro and Power Authority	Clement Ma	Affirmative	
5	Black Hills Corp	George Tatar	Affirmative	
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	
5	City and County of San Francisco	Daniel Mason	Negative	View
5	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Max Emrick	Affirmative	
5	City of Tallahassee	Alan Gale	Affirmative	
5	Cleco Power	Stephanie Huffman	Affirmative	View
5	Consolidated Edison Co. of New York	Wilket (Jack) Ng	Affirmative	
5	Consumers Energy	James B Lewis	Negative	View
5	Cowlitz County PUD	Bob Essex	Affirmative	
5	Detroit Edison Company	Christy Wicke		
5	Dominion Resources, Inc.	Mike Garton	Affirmative	
5	Duke Energy	Dale Q Goodwine	Affirmative	
5	East Kentucky Power Coop.	Stephen Ricker	Affirmative	
5	Energy Northwest - Columbia Generating Station	Doug Ramey	Affirmative	
5	Entergy Corporation	Stanley M Jaskot	Affirmative	
5	Exelon Nuclear	Michael Korchynsky	Affirmative	

5	Great River Energy	Cynthia E Sulzer		
5	Green Country Energy	Greg Froehling		
5	Horizon Wind Energy	Brent Hebert	Affirmative	
5	Indeck Energy Services, Inc.	Rex A Roehl	Abstain	
5	Kissimmee Utility Authority	Mike Blough	Affirmative	
5	Lakeland Electric	Thomas J Trickey	Affirmative	
5	Louisville Gas and Electric Co.	Charlie Martin		
5	Manitoba Hydro	S N Fernando	Affirmative	
5	MEAG Power	Steven Grego	Abstain	
5	MidAmerican Energy Co.	Christopher Schneider	Negative	View
5	Nebraska Public Power District	Don Schmit	Affirmative	
5	New York Power Authority	Gerald Mannarino	Affirmative	
5	Northern Indiana Public Service Co.	Michael K Wilkerson	Negative	
5	Occidental Chemical	Michelle DAntuono	Abstain	
5	Orlando Utilities Commission	Richard Kinan	Affirmative	View
5	PacifiCorp	Sandra L. Shaffer	Affirmative	
5	Portland General Electric Co.	Gary L Tingley		
5	PowerSouth Energy Cooperative	Tim Hattaway	Affirmative	
5	PPL Generation LLC	Annette M Bannon	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis	Affirmative	
5	PSEG Power LLC	David Murray	Affirmative	
5	RRI Energy	Thomas J. Bradish	Affirmative	
5	Sacramento Municipal Utility District	Bethany Wright	Affirmative	
5	Salt River Project	Glen Reeves		
5	Seattle City Light	Michael J. Haynes	Affirmative	
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins		
5	South Mississippi Electric Power Association	Jerry W Johnson	Affirmative	
5	Tampa Electric Co.	RJames Rocha	Negative	
5	Tennessee Valley Authority	George T. Ballew	Affirmative	
5	U.S. Army Corps of Engineers Northwestern Division	Karl Bryan	Affirmative	
5	U.S. Bureau of Reclamation	Martin Bauer P.E.	Negative	View
5	Wisconsin Electric Power Co.	Linda Horn	Affirmative	View
5	Wisconsin Public Service Corp.	Leonard Rentmeester		
6	AEP Marketing	Edward P. Cox	Negative	View
6	Arizona Public Service Co.	Justin Thompson	Affirmative	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	
6	Cleco Power LLC	Robert Hirschak	Affirmative	View
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Affirmative	

6	Constellation Energy Commodities Group	Brenda Powell	Affirmative	
6	Dominion Resources, Inc.	Louis S Slade	Affirmative	
6	Duke Energy Carolina	Walter Yeager	Affirmative	
6	Entergy Services, Inc.	Terri F Benoit	Affirmative	
6	Eugene Water & Electric Board	Daniel Mark Bedbury	Affirmative	
6	Exelon Power Team	Pulin Shah	Affirmative	
6	FirstEnergy Solutions	Mark S Travaglianti	Affirmative	
6	Florida Municipal Power Pool	Thomas E Washburn	Affirmative	
6	Florida Power & Light Co.	Silvia P Mitchell	Affirmative	
6	Lakeland Electric	Paul Shipps	Affirmative	
6	Lincoln Electric System	Eric Ruskamp	Affirmative	
6	Louisville Gas and Electric Co.	Daryn Barker	Negative	View
6	Manitoba Hydro	Daniel Prowse	Affirmative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Negative	View
6	NRG Energy, Inc.	Alan R. Johnson	Negative	View
6	Omaha Public Power District	David Ried	Affirmative	
6	PacifiCorp	Scott L Smith	Affirmative	
6	PPL EnergyPlus LLC	Mark A Heimbach	Affirmative	
6	Progress Energy	John T Sturgeon	Affirmative	
6	PSEG Energy Resources & Trade LLC	James D. Hebson	Affirmative	
6	Public Utility District No. 1 of Chelan County	Hugh A. Owen		
6	Salt River Project	Mike Hummel		
6	Santee Cooper	Suzanne Ritter	Affirmative	
6	Seattle City Light	Dennis Sismaet	Affirmative	View
6	Seminole Electric Cooperative, Inc.	Trudy S. Novak	Affirmative	
6	South Carolina Electric & Gas Co.	Matt H Bullard		
6	Tacoma Public Utilities	Michael C Hill	Affirmative	
6	Tampa Electric Co.	Joann Wehle	Negative	
6	Tennessee Valley Authority	Marjorie S. Parsons	Affirmative	
6	Western Area Power Administration - UGP Marketing	John Stonebarger	Affirmative	
6	Xcel Energy, Inc.	David F. Lemmons	Negative	View
8		Roger C Zaklukiewicz	Affirmative	
8		James A Maenner	Affirmative	View
8		Edward C Stein		
8	JDRJC Associates	Jim D. Cyrulewski	Affirmative	
8	Power Energy Group LLC	Peggy Abbadini		
9	California Energy Commission	William Mitchell Chamberlain	Affirmative	

9	Commonwealth of Massachusetts Department of Public Utilities	Donald E. Nelson	Affirmative	
9	National Association of Regulatory Utility Commissioners	Diane J. Barney	Affirmative	
9	Oregon Public Utility Commission	Jerome Murray	Abstain	
10	Florida Reliability Coordinating Council	Linda Campbell	Abstain	
10	New York State Reliability Council	Alan Adamson	Affirmative	
10	Northeast Power Coordinating Council, Inc.	Guy V. Zito	Affirmative	
10	ReliabilityFirst Corporation	Jacque Smith	Abstain	
10	SERC Reliability Corporation	Carter B Edge	Affirmative	
10	Southwest Power Pool Regional Entity	Stacy Dochoda	Affirmative	
10	Texas Reliability Entity	Larry D Grimm	Affirmative	
10	Western Electricity Coordinating Council	Louise McCarren	Affirmative	

Ballot Results	
Ballot Name:	Project 2007-04 - Certifying System Operators - PER-003_in
Ballot Period:	9/14/2010 - 9/24/2010
Ballot Type:	Initial
Total # Votes:	268
Total Ballot Pool:	289
Quorum:	92.73 % The Quorum has been reached
Weighted Segment Vote:	79.17 %
Ballot Results:	The standard will proceed to recirculation ballot.

Summary of Ballot Results									
Segment	Ballot Pool	Segment Weight	Affirmative		Negative		Abstain	No Vote	
			# Votes	Fraction	# Votes	Fraction	# Votes		
1 - Segment 1.	90	1	62	0.756	20	0.244	6	2	
2 - Segment 2.	11	0.8	5	0.5	3	0.3	0	3	
3 - Segment 3.	63	1	43	0.729	16	0.271	1	3	
4 - Segment 4.	19	1	12	0.706	5	0.294	2	0	
5 - Segment 5.	53	1	35	0.833	7	0.167	3	8	
6 - Segment 6.	36	1	27	0.818	6	0.182	0	3	
7 - Segment 7.	0	0	0	0	0	0	0	0	
8 - Segment 8.	5	0.3	3	0.3	0	0	0	2	
9 - Segment 9.	4	0.3	3	0.3	0	0	1	0	
10 - Segment 10.	8	0.6	6	0.6	0	0	2	0	

Totals	289	7	196	5.542	57	1.458	15	21
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Individual Ballot Pool Results				
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Segment	Organization	Member	Ballot	Comments
1	Allegheny Power	Rodney Phillips	Negative	View
1	Ameren Services	Kirit S. Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Negative	View
1	American Transmission Company, LLC	Jason Shaver	Negative	
1	Arizona Public Service Co.	Robert D Smith	Affirmative	
1	Associated Electric Cooperative, Inc.	John Bussman	Negative	View
1	Avista Corp.	Scott Kinney	Negative	View
1	Baltimore Gas & Electric Company	John J. Moraski	Affirmative	View
1	BC Transmission Corporation	Gordon Rawlings	Affirmative	
1	Beaches Energy Services	Joseph S. Stonecipher	Abstain	
1	Black Hills Corp	Eric Egge	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	
1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Negative	View
1	CenterPoint Energy	Paul Rocha	Negative	
1	Central Maine Power Company	Brian Conroy	Affirmative	
1	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Chang G Choi	Affirmative	
1	City of Vero Beach	Randall McCamish	Affirmative	
1	Clark Public Utilities	Jack Stamper	Affirmative	

1	Cleco Power LLC	Danny McDaniel	Affirmative	View
1	Colorado Springs Utilities	Paul Morland	Affirmative	
1	Commonwealth Edison Co.	Gregory Campbell	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Affirmative	
1	Dairyland Power Coop.	Robert W. Roddy	Affirmative	
1	Dominion Virginia Power	John K Loftis	Affirmative	
1	Duke Energy Carolina	Douglas E. Hils	Affirmative	
1	E.ON U.S.	Larry Monday	Negative	
1	East Kentucky Power Coop.	George S. Carruba	Affirmative	
1	Empire District Electric Co.	Ralph Frederick Meyer	Negative	
1	Entergy Corporation	George R. Bartlett	Affirmative	
1	FirstEnergy Energy Delivery	Robert Martinko	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Affirmative	
1	Georgia Transmission Corporation	Harold Taylor, II		
1	Great River Energy	Gordon Pietsch	Negative	View
1	Hoosier Energy Rural Electric Cooperative, Inc.	Robert Solomon	Affirmative	
1	Hydro One Networks, Inc.	Ajay Garg	Affirmative	
1	Hydro-Quebec TransEnergie	Bernard Pelletier	Affirmative	
1	International Transmission Company Holdings Corp	Michael Moltane	Negative	View
1	Kansas City Power & Light Co.	Michael Gammon	Affirmative	
1	Lake Worth Utilities	Walt Gill	Affirmative	
1	Lakeland Electric	Larry E Watt	Affirmative	
1	Lee County Electric Cooperative	John W Delucca	Affirmative	

1	Long Island Power Authority	Robert Ganley	Affirmative	
1	Manitoba Hydro	Michelle Rheault	Affirmative	
1	MEAG Power	Danny Dees	Abstain	
1	MidAmerican Energy Co.	Terry Harbour	Negative	View
1	Minnkota Power Coop. Inc.	Richard Burt	Abstain	
1	National Grid	Saurabh Saksena	Affirmative	
1	Nebraska Public Power District	Richard L. Koch	Affirmative	
1	New Brunswick Power Transmission Corporation	Randy MacDonald	Affirmative	
1	New York State Electric & Gas Corp.	Henry G. Masti		
1	Northeast Utilities	David H. Boguslawski	Affirmative	
1	Northern Indiana Public Service Co.	Kevin M Largura	Negative	
1	NorthWestern Energy	John Canavan	Affirmative	
1	Ohio Valley Electric Corp.	Robert Matthey	Negative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber	Affirmative	
1	Omaha Public Power District	Douglas G Peterchuck	Affirmative	
1	Oncor Electric Delivery	Michael T. Quinn	Affirmative	
1	Orlando Utilities Commission	Brad Chase	Abstain	View
1	Otter Tail Power Company	Lawrence R. Larson	Negative	View
1	Pacific Gas and Electric Company	Chifong L. Thomas	Affirmative	
1	PacifiCorp	Mark Sampson	Affirmative	
1	PECO Energy	Ronald Schloendorn	Affirmative	
1	Platte River Power Authority	John C. Collins	Affirmative	
1	Portland General Electric Co.	Frank F. Afranji	Affirmative	View
1	Potomac Electric Power Co.	Richard J Kafka	Affirmative	View

1	PPL Electric Utilities Corp.	Brenda L Truhe	Affirmative	
1	Progress Energy Carolinas	Sammy Roberts	Affirmative	
1	Public Service Company of New Mexico	Laurie Williams	Affirmative	
1	Public Service Electric and Gas Co.	Kenneth D. Brown	Affirmative	
1	Puget Sound Energy, Inc.	Catherine Koch	Negative	View
1	Rochester Gas and Electric Corp.	John C Allen	Abstain	
1	Sacramento Municipal Utility District	Tim Kelley	Affirmative	
1	Salt River Project	Robert Kondziolka	Affirmative	
1	Santee Cooper	Terry L. Blackwell	Affirmative	
1	SCE&G	Henry Delk, Jr.	Affirmative	
1	Seattle City Light	Pawel Krupa	Affirmative	
1	Sierra Pacific Power Co.	Richard Salgo	Affirmative	View
1	South Texas Electric Cooperative	Richard McLeon	Negative	View
1	Southern California Edison Co.	Dana Cabbell	Affirmative	
1	Southern Company Services, Inc.	Horace Stephen Williamson	Negative	View
1	Southwest Transmission Cooperative, Inc.	James L. Jones	Affirmative	
1	Southwestern Power Administration	Gary W Cox	Affirmative	
1	Sunflower Electric Power Corporation	Noman Lee Williams	Affirmative	
1	Tampa Electric Co.	Beth Young	Negative	
1	Tennessee Valley Authority	Larry Akens	Affirmative	
1	Tri-State G & T Association, Inc.	Keith V. Carman	Affirmative	
1	Tucson Electric Power Co.	John Tolo	Affirmative	
1	United Illuminating Co.	Jonathan Appelbaum	Abstain	

1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Xcel Energy, Inc.	Gregory L Pieper	Negative	View
2	Alberta Electric System Operator	Mark B Thompson	Negative	View
2	BC Hydro	Venkataramakrishnan Vinnakota		
2	California ISO	Gregory Van Pelt	Affirmative	
2	Electric Reliability Council of Texas, Inc.	Chuck B Manning		
2	Independent Electricity System Operator	Kim Warren	Affirmative	
2	ISO New England, Inc.	Kathleen Goodman	Affirmative	
2	Midwest ISO, Inc.	Jason L Marshall	Negative	View
2	New Brunswick System Operator	Alden Briggs	Affirmative	
2	New York Independent System Operator	Gregory Campoli		
2	PJM Interconnection, L.L.C.	Tom Bowe	Affirmative	
2	Southwest Power Pool	Charles H Yeung	Negative	View
3	Alabama Power Company	Richard J. Mandes	Negative	View
3	Allegheny Power	Bob Reeping	Negative	View
3	Ameren Services	Mark Peters	Affirmative	
3	American Electric Power	Raj Rana	Negative	View
3	Anaheim Public Utilities Dept.	Kelly Nguyen		
3	APS	Steven Norris	Affirmative	
3	Atlantic City Electric Company	James V. Petrella	Affirmative	
3	BC Hydro and Power Authority	Pat G. Harrington	Affirmative	
3	Blue Ridge Power Agency	Duane S. Dahlquist	Affirmative	
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	

3	City of Clewiston	Lynne Mila	Affirmative	
3	City of Farmington	Linda R. Jacobson	Affirmative	
3	City of Green Cove Springs	Gregg R Griffin		
3	City of Leesburg	Phil Janik	Affirmative	
3	Cleco Corporation	Michelle A Corley	Affirmative	View
3	ComEd	Bruce Krawczyk	Affirmative	
3	Consolidated Edison Co. of New York	Peter T Yost	Affirmative	
3	Constellation Energy	Carolyn Ingersoll		
3	Consumers Energy	David A. Lapinski	Negative	View
3	Cowlitz County PUD	Russell A Noble	Affirmative	
3	Delmarva Power & Light Co.	Michael R. Mayer	Affirmative	
3	Dominion Resources Services	Michael F Gildea	Affirmative	
3	Duke Energy Carolina	Henry Ernst-Jr	Affirmative	
3	East Kentucky Power Coop.	Sally Witt	Affirmative	
3	Entergy	Joel T Plessinger	Affirmative	
3	FirstEnergy Solutions	Kevin Querry	Affirmative	
3	Florida Power Corporation	Lee Schuster	Affirmative	
3	Georgia Power Company	Anthony L Wilson	Negative	View
3	Georgia System Operations Corporation	R Scott S. Barfield-McGinnis	Affirmative	
3	Great River Energy	Sam Kokkinen	Negative	
3	Gulf Power Company	Gwen S Frazier	Negative	View
3	Hydro One Networks, Inc.	Michael D. Penstone	Affirmative	
3	Kansas City Power & Light Co.	Charles Locke	Affirmative	
3	Kissimmee Utility Authority	Gregory David Woessner	Affirmative	

3	Louisville Gas and Electric Co.	Charles A. Freibert	Negative	View
3	Manitoba Hydro	Greg C Parent	Affirmative	
3	MidAmerican Energy Co.	Thomas C. Mielnik	Negative	
3	Mississippi Power	Don Horsley	Negative	View
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Abstain	
3	Muscatine Power & Water	John S Bos	Negative	View
3	Nebraska Public Power District	Tony Eddleman	Affirmative	
3	New York Power Authority	Marilyn Brown	Affirmative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Affirmative	
3	Northern Indiana Public Service Co.	William SeDoris	Negative	
3	Orlando Utilities Commission	Ballard Keith Mutters	Affirmative	View
3	PacifiCorp	John Apperson	Affirmative	
3	PECO Energy an Exelon Co.	Vincent J. Catania	Affirmative	
3	Platte River Power Authority	Terry L Baker	Affirmative	
3	PNM Resources	Michael Mertz	Affirmative	
3	Potomac Electric Power Co.	Robert Reuter	Negative	
3	Progress Energy Carolinas	Sam Waters	Affirmative	
3	Public Service Electric and Gas Co.	Jeffrey Mueller	Affirmative	
3	Sacramento Municipal Utility District	James Leigh-Kendall	Affirmative	
3	Salt River Project	John T. Underhill	Affirmative	
3	San Diego Gas & Electric	Scott Peterson	Negative	View
3	Santee Cooper	Zack Dusenbury	Affirmative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	South Carolina Electric & Gas Co.	Hubert C. Young	Affirmative	

3	Tacoma Public Utilities	Travis Metcalfe	Affirmative	
3	Tampa Electric Co.	Ronald L Donahey	Negative	
3	Tennessee Valley Authority	Ian S Grant	Affirmative	
3	Wisconsin Electric Power Marketing	James R. Keller	Affirmative	View
3	Xcel Energy, Inc.	Michael Ibold	Negative	View
4	Alliant Energy Corp. Services, Inc.	Kenneth Goldsmith	Negative	View
4	American Municipal Power - Ohio	Kevin Koloini	Negative	
4	City of Clewiston	Kevin McCarthy	Affirmative	
4	City of New Smyrna Beach Utilities Commission	Timothy Beyrle	Affirmative	
4	Consumers Energy	David Frank Ronk	Negative	View
4	Cowlitz County PUD	Rick Syring	Affirmative	
4	Fort Pierce Utilities Authority	Thomas W. Richards	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Affirmative	
4	Integrus Energy Group, Inc.	Christopher Plante	Abstain	
4	LaGen	Richard Comeaux	Abstain	
4	Madison Gas and Electric Co.	Joseph G. DePoorter	Negative	View
4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Public Utility District No. 1 of Douglas County	Henry E. LuBean	Negative	View
4	Sacramento Municipal Utility District	Mike Ramirez	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R Wallace	Affirmative	
4	South Mississippi Electric Power Association	Steve McElhaney	Affirmative	
4	Tacoma Public Utilities	Keith Morisette	Affirmative	

4	Wisconsin Energy Corp.	Anthony Jankowski	Affirmative	View
5	AEP Service Corp.	Brock Ondayko	Negative	View
5	Amerenue	Sam Dwyer	Affirmative	
5	APS	Mel Jensen	Affirmative	
5	BC Hydro and Power Authority	Clement Ma	Affirmative	
5	Black Hills Corp	George Tatar	Affirmative	
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	
5	City and County of San Francisco	Daniel Mason	Negative	View
5	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Max Emrick	Affirmative	
5	City of Tallahassee	Alan Gale	Affirmative	
5	Cleco Power	Stephanie Huffman	Affirmative	View
5	Consolidated Edison Co. of New York	Wilket (Jack) Ng	Affirmative	
5	Consumers Energy	James B Lewis	Negative	View
5	Cowlitz County PUD	Bob Essex	Affirmative	
5	Detroit Edison Company	Christy Wicke		
5	Dominion Resources, Inc.	Mike Garton	Affirmative	
5	Duke Energy	Dale Q Goodwine	Affirmative	
5	East Kentucky Power Coop.	Stephen Ricker	Affirmative	
5	Energy Northwest - Columbia Generating Station	Doug Ramey	Affirmative	
5	Entergy Corporation	Stanley M Jaskot	Affirmative	
5	Exelon Nuclear	Michael Korchynsky	Affirmative	
5	Great River Energy	Cynthia E Sulzer		
5	Green Country Energy	Greg Froehling		

5	Horizon Wind Energy	Brent Hebert	Affirmative	
5	Indeck Energy Services, Inc.	Rex A Roehl	Abstain	
5	Kissimmee Utility Authority	Mike Blough	Affirmative	
5	Lakeland Electric	Thomas J Trickey	Affirmative	
5	Louisville Gas and Electric Co.	Charlie Martin		
5	Manitoba Hydro	S N Fernando	Affirmative	
5	MEAG Power	Steven Grego	Abstain	
5	MidAmerican Energy Co.	Christopher Schneider	Negative	View
5	Nebraska Public Power District	Don Schmit	Affirmative	
5	New York Power Authority	Gerald Mannarino	Affirmative	
5	Northern Indiana Public Service Co.	Michael K Wilkerson	Negative	
5	Occidental Chemical	Michelle DAntuono	Abstain	
5	Orlando Utilities Commission	Richard Kinas	Affirmative	View
5	PacifiCorp	Sandra L. Shaffer	Affirmative	
5	Portland General Electric Co.	Gary L Tingley		
5	PowerSouth Energy Cooperative	Tim Hattaway	Affirmative	
5	PPL Generation LLC	Annette M Bannon	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis	Affirmative	
5	PSEG Power LLC	David Murray	Affirmative	
5	RRI Energy	Thomas J. Bradish	Affirmative	
5	Sacramento Municipal Utility District	Bethany Wright	Affirmative	
5	Salt River Project	Glen Reeves		
5	Seattle City Light	Michael J. Haynes	Affirmative	
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins		

5	South Mississippi Electric Power Association	Jerry W Johnson	Affirmative	
5	Tampa Electric Co.	RJames Rocha	Negative	
5	Tennessee Valley Authority	George T. Ballew	Affirmative	
5	U.S. Army Corps of Engineers Northwestern Division	Karl Bryan	Affirmative	
5	U.S. Bureau of Reclamation	Martin Bauer P.E.	Negative	View
5	Wisconsin Electric Power Co.	Linda Horn	Affirmative	View
5	Wisconsin Public Service Corp.	Leonard Rentmeester		
6	AEP Marketing	Edward P. Cox	Negative	View
6	Arizona Public Service Co.	Justin Thompson	Affirmative	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	
6	Cleco Power LLC	Robert Hirschak	Affirmative	View
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Affirmative	
6	Constellation Energy Commodities Group	Brenda Powell	Affirmative	
6	Dominion Resources, Inc.	Louis S Slade	Affirmative	
6	Duke Energy Carolina	Walter Yeager	Affirmative	
6	Entergy Services, Inc.	Terri F Benoit	Affirmative	
6	Eugene Water & Electric Board	Daniel Mark Bedbury	Affirmative	
6	Exelon Power Team	Pulin Shah	Affirmative	
6	FirstEnergy Solutions	Mark S Travaglianti	Affirmative	
6	Florida Municipal Power Pool	Thomas E Washburn	Affirmative	
6	Florida Power & Light Co.	Silvia P Mitchell	Affirmative	
6	Lakeland Electric	Paul Shipps	Affirmative	
6	Lincoln Electric System	Eric Ruskamp	Affirmative	

6	Louisville Gas and Electric Co.	Daryn Barker	Negative	View
6	Manitoba Hydro	Daniel Prowse	Affirmative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Negative	View
6	NRG Energy, Inc.	Alan R. Johnson	Negative	View
6	Omaha Public Power District	David Ried	Affirmative	
6	PacifiCorp	Scott L Smith	Affirmative	
6	PPL EnergyPlus LLC	Mark A Heimbach	Affirmative	
6	Progress Energy	John T Sturgeon	Affirmative	
6	PSEG Energy Resources & Trade LLC	James D. Hebson	Affirmative	
6	Public Utility District No. 1 of Chelan County	Hugh A. Owen		
6	Salt River Project	Mike Hummel		
6	Santee Cooper	Suzanne Ritter	Affirmative	
6	Seattle City Light	Dennis Sismaet	Affirmative	View
6	Seminole Electric Cooperative, Inc.	Trudy S. Novak	Affirmative	
6	South Carolina Electric & Gas Co.	Matt H Bullard		
6	Tacoma Public Utilities	Michael C Hill	Affirmative	
6	Tampa Electric Co.	Joann Wehle	Negative	
6	Tennessee Valley Authority	Marjorie S. Parsons	Affirmative	
6	Western Area Power Administration - UGP Marketing	John Stonebarger	Affirmative	
6	Xcel Energy, Inc.	David F. Lemmons	Negative	View
8		Roger C Zaklukiewicz	Affirmative	
8		James A Maenner	Affirmative	View
8		Edward C Stein		
8	JDRJC Associates	Jim D. Cyrulewski	Affirmative	

8	Power Energy Group LLC	Peggy Abbadini		
9	California Energy Commission	William Mitchell Chamberlain	Affirmative	
9	Commonwealth of Massachusetts Department of Public Utilities	Donald E. Nelson	Affirmative	
9	National Association of Regulatory Utility Commissioners	Diane J. Barney	Affirmative	
9	Oregon Public Utility Commission	Jerome Murray	Abstain	
10	Florida Reliability Coordinating Council	Linda Campbell	Abstain	
10	New York State Reliability Council	Alan Adamson	Affirmative	
10	Northeast Power Coordinating Council, Inc.	Guy V. Zito	Affirmative	
10	ReliabilityFirst Corporation	Jacque Smith	Abstain	
10	SERC Reliability Corporation	Carter B Edge	Affirmative	
10	Southwest Power Pool Regional Entity	Stacy Dochoda	Affirmative	
10	Texas Reliability Entity	Larry D Grimm	Affirmative	
10	Western Electricity Coordinating Council	Louise McCarren	Affirmative	

Standards Announcement

Initial Ballot and Non-binding Poll Results

Now available at: <https://standards.nerc.net/Ballots.aspx>

Project 2007-04 - Certifying System Operators - PER-003

The initial ballot and non-binding poll of VRFs and VSLs for Project 2007-04 — Certifying System Operators both ended on September 24, 2010.

Initial Ballot Results for PER-003-1 — Operating Personnel Credentials and its Implementation Plan

Voting statistics are listed below, and the [Ballot Results](#) Web page provides a link to the detailed results:

Quorum: 92.73%

Approval: 79.17%

Since at least one negative ballot included a comment, these results are not final. Another ballot (either a successive ballot or a recirculation ballot) must be conducted.

Violation Risk Factor (VRF) and Violation Severity Level (VSL) Non-binding Poll Results

For the non-binding poll of VRFs and VSLs, 86% of those who registered to participate provided an opinion; 83% of those who provided an opinion indicated support for the VRFs and VSLs that were proposed.

Transition from Reliability Standards Development Procedure Version 7 to Standard Processes Manual

Under the Reliability Standards Development Procedure Version 7, consensus was built with successive formal comment periods, followed by a 30-day pre-ballot review, followed by an initial ballot, and then a recirculation ballot. The intent was to use stakeholder views submitted through the formal comment periods to achieve consensus, and then to confirm that consensus during the balloting. This process did not allow a drafting team to make any changes to a standard between ballots, which incited teams to avoid making improvements once a standard had gone through an initial ballot. If a team made a change between ballots, then the standard was required to be posted for a new comment period, and then another pre-ballot review and another initial ballot, and finally if there were no more changes made to the standard, a recirculation ballot was conducted to confirm consensus.

Under the new Standard Processes Manual, consensus is achieved through parallel comment and ballot periods. Successive comment and ballot periods are conducted until there is consensus, and then a recirculation ballot is conducted to confirm that consensus. There is no 30-day pre-ballot review period, and drafting teams are encouraged to make revisions to the standard between successive ballots to improve the quality of the standard.

Next Steps

The drafting team will consider all comments (those submitted with a comment form, and those submitted with a ballot) and will determine whether to make additional changes to the standard. The team will post its response

to comments.

- If the standard needs significant modifications, the team will post the revised standard for a new 30-day comment period and will conduct a new ballot (called a “successive” ballot) during the last 10 days of that comment period. During a successive ballot, all members of the ballot pool must cast a new ballot, as the standard presented has significant changes.
- If the initial ballot and parallel comment period show that the standard needs either minor or no changes, the team will post the standard and conduct a 10-day recirculation ballot. During a recirculation ballot, members of the ballot pool may cast a new vote but are not required to do so as the standard presented does not have any significant changes.

Project Background

PER-003-0, a “Version 0” standard, requires each Reliability Coordinator, Balancing Authority, and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential. The standard is being revised to address the directives from FERC Order 693 and industry comments from Version 0.

Further details are available on the project page:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Applicability of Standards in Project

Balancing Authority
Reliability Coordinator
Transmission Operator

Standards Process

The [Standard Processes Manual](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

*For more information or assistance, please contact Monica Benson,
Standards Process Administrator, at monica.benson@nerc.net or at 609.452.8060.*

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Consideration of Comments on Non-binding Poll of VRFs and VSLs for PER-003-1 - Operating Personnel Credentials (Project 2007-04)

Date of Poll: September 14 – 24, 2010

Summary Consideration: A non-binding poll of VRFs and VSLs was conducted from September 14-24, 2010 and achieved a quorum with 86% of those who registered to participate provided an opinion; 83% of those who provided an opinion indicated support for the VRFs and VSLs that were proposed. The drafting team considered the comments submitted, but did not make any changes to the VRFs or VSLs based on those comments.

The majority of the negative commenters felt the VSLs were either set too high or should be graduated. The Requirement is binary in that the System Operator either has the appropriate, valid certificate or does not. The Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times. The Violation Severity Levels are based on the VSL Guidelines, Guideline 2 which states “A violation of a “binary” type requirement must be a “Severe” VSL.”

Several of the negative commenters felt that the VRFs were too high and should be at a medium level at best. The current standard contains a single requirement with a high VRF and the SDT believes that this is appropriate with the definition of a high VRF. The SDT is not saying that non-compliance will necessarily lead to cascading outages. In the event of an emergency an unqualified System Operator may not know what to do and his or her actions could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.

A few of the negative commenters wanted the “minimum competencies” removed from the proposed standard. FERC Order 693 contains a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the “Areas of Competency” as used in the proposed standard represent the most efficient and effective method of meeting this FERC directive and the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The “Areas of Competency” identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future; recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced his or her ability to operate the Bulk Electric System.

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herbert Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.

Voter	Entity	Segment	Vote	Comment
Robert Martinko	FirstEnergy Energy Delivery	1	Negative	FE believes that, although important to reliability, a violation of system operator certification does not present a HIGH risk to the BES. Therefore, we suggest changing the VRF from HIGH to MEDIUM in all three requirements of standard PER-003-1.
Kevin Querry	FirstEnergy Solutions	3		
Mark S Travaglianti	FirstEnergy Solutions	6		
Douglas Hohlbaugh	Ohio Edison Company	4		
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified System Operator may not know what to do and his or her actions could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.</p>				
Terry Harbour	MidAmerican Energy Co.	1	Negative	The high VRFs overstate the risk.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified System Operator may not know what to do and his or her actions could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.</p>				
James A Maenner		8	Negative	There needs to be more granularity in VFR/VSL. There is significant difference between an operator who's certificate recently expired and an operator who has never been certified. Recommend the following scale: Medium - an operator's certification expired 1 day to 30 days prior to the date of violation. High - an operator's certification expired 31 to 60 days prior to the date of the violation. Severe - operator never certified or certification expired over 60 days prior to the date of the violation.
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.</p>				

Voter	Entity	Segment	Vote	Comment
John Tolo	Tucson Electric Power Co.	1	Negative	Although System Operator certification is a requirement under PER-003, it is our belief that the mere act of taking a certification exam does not ensure that the System Operator is adequately trained or knowledgeable for situations that he or she may encounter. It is also our belief that the Violation Severity Level(VSL) should, at best, be "high" not Severe. thank you
<p>Response: The SDT believes that in addition to achieving NERC certification, it is the entity's responsibility to determine when an individual (trainee) is qualified to fill a Real-time operating position.</p> <p>The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Jason L Marshall	Midwest ISO, Inc.	2	Negative	We disagree with the VRFs. NERC's definition of a High VRF includes the following language: "A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation or a cascading sequency of failures...". No violation of any of these requirements could be deemed to directly cause instability, separation or cascading. Another event would have to occur such as an uncertified operator failing to take appropriate action. Even with an uncertified operator, the registered entity would have to violate PER-002, PER-004 and PER-005 as well. There are requirements in those standards regarding training for emergency conditions that will better prepare an operator. Thus, the requirements in PER-003 should not have High VRFs because there is no direct connection between a violation of the proposed requirements and instability, separation or cascading. Further, we argue that the requirements are largely administrative and therefore should have Lower VRFs.
<p>Response: The current standard contains a high VRF. The SDT believes that this is appropriate with the definition of a high VRF. Also, the SDT is not saying that non-compliance will necessarily lead to cascading outages. However, in the event of an emergency an unqualified operator may not know what to do and therefore could result in cascading outages in a requirement that, if violated, could directly cause or contribute to Bulk-Power System instability, separation, or a cascading sequence of failures, or could place the Bulk-Power System at an unacceptable risk of instability, separation, or cascading failures.</p>				
Charles H Yeung	Southwest Power Pool	2	Negative	We do not support the standard as written. Please refer to the comments submitted by the IRC Stadnards Review Committee for our concerns.
<p>Response: The SDT cannot find in any of the Comment reports (formal comment period, initial ballot or this document) that references the IRC Standards Review Committee.</p>				

Voter	Entity	Segment	Vote	Comment
Tony Eddleman Don Schmit	Nebraska Public Power District	3 5	Negative	Violation Severity Levels are all Severe. It would seem that the amount of time a position was staffed with a non-certified person does not play into the severity, and it should. There is more risk involved the longer a position is staffed without a certified person.
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Scott Peterson	San Diego Gas & Electric	3	Negative	Violation Severity Levels - there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT believes that the Real-time operation of the power system is dynamic and the intent of this requirement is to ensure that there is a System Operator with a minimum set of competencies sitting in each RC, TOP, and BA control room at all times.</p>				
Michael Ibold	Xcel Energy, Inc.	3	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
<p>Response: FERC Order 693 contained a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. Note that the competencies identified for the certification exams are identified through a highly structured, valid process that involves incumbent System Operators. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				
Henry E. LuBean	Public Utility District No. 1 of Douglas County	4	Negative	The VRFs seem to be OK but the VSLs are too high for affects on the BES. Direct affects on the reliability of the BES, such as SOL violations are clear, black or white. Indirect affects, or no affect at all, such as whether a system operator is certified or not, should not be held to such a "severe" level. Every decision of a system operator does not have a direct affect on the reliability of the BES; only the major ones that cause problems, under certain circumstances, at certain times, etc. etc. Even the major decisions don't cause negative problems most of the time. A single decision out of many, that might cause a negative problem, should not be held to the same VSL as the black and white reliability problems that occur one-on-one (directly).

Voter	Entity	Segment	Vote	Comment
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Alan Gale	City of Tallahassee	5	Negative	The exclusion of a clause to reduce the compliance severity if an emergency situation occurs that requires a non-certified person to be able to perform duties while transitioning to a backup facility will result in no-one performing any monitoring or any action during the transition because it is better to let the system fail than risk a High VRF with a Severe VSL.
<p>Response: The drafting team believes that the transition to the backup control center is covered by EOP-008-0 Requirement R1.8 and in EOP-008-1 Requirements R1, R3 and R4.</p>				
James B Lewis	Consumers Energy	5	Negative	Please see comments in the Standards vote.
<p>Response: The SDT thanks you for your comment. Please refer to our response in the initial ballot comment report.</p>				
Rex A Roehl	Indeck Energy Services, Inc.	5	Negative	Not all violations should be at the Severe level
<p>Response: The SDT feels that the Requirement is binary in that the System Operator either holds the appropriate, valid certificate or does not. The SDT based the Violation Severity Level on the VSL Guidelines, Guideline 2 which states "A violation of a "binary" type requirement must be a "Severe" VSL."</p>				
Charlie Martin	Louisville Gas and Electric Co.	5	Negative	Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."
<p>Response: FERC Order 693 contained a directive to modify the PER-003 standard to include minimum competencies. The SDT believes that the "Areas of Competency" as used in the proposed standard represents the most efficient and effective method of meeting this FERC directive. The drafting team believes that the NERC Certification program provides the foundation for the minimum competency that a person must possess to operate the Bulk Electric System reliably. The "Areas of Competency" identified in this standard are, by design, at a high enough level to ensure they will be included in any exam the NERC Certification Program would use both now and in the future. In addition, recertification through training would also touch upon one or more of these areas ensuring that anyone maintaining a valid NERC Certification has enhanced their ability to operate the Bulk Electric System.</p>				

Consideration of Comments on Non-binding Poll of VRFs and VSLs for PER-003-1 - Operating Personnel Credentials

Voter	Entity	Segment	Vote	Comment
Joseph O'Brien	Northern Indiana Public Service Co.	6	Affirmative	Given the standard the VSL's look fine.
Response: The SDT thanks you for your affirmative response and clarifying comment.				
Dennis Sismaet	Seattle City Light	6	Affirmative	Appropriate to change the language to indicate NERC certification as the requirement.
Response: The SDT thanks you for your affirmative response and clarifying comment.				
Brad Chase	Orlando Utilities Commission	1	Abstain	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Response: The SDT has modified the Measure M1.3 to provide clarification. The Measure M1.3 now reads "A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency".				
Danny McDaniel	Cleco Power LLC	1	Affirmative	None
Michelle A Corley	Cleco Corporation	3	Affirmative	None
Stephanie Huffman	Cleco Power	5	Affirmative	None
Robert Hirschak	Cleco Power LLC	6	Affirmative	None

A. Introduction

- 1. Title:** **Operating Personnel Credentials**
- 2. Number:** PER-003-0
- 3. Purpose:** Certification of operating personnel is necessary to ensure minimum competencies for operating a reliable Bulk Electric System.
- 4. Applicability**
 - 4.1.** Transmission Operators.
 - 4.2.** Balancing Authorities.
 - 4.3.** Reliability Coordinators.
- 5. Effective Date:** April 1, 2005

B. Requirements

- R1.** Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall staff all operating positions that meet both of the following criteria with personnel that are NERC-certified for the applicable functions:
 - R1.1.** Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.
 - R1.2.** Positions directly responsible for complying with NERC standards.

C. Measures

- M1.** Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall have NERC-certified operating personnel on shift in required positions at all times with the following exceptions:
 - M1.1** While in training, an individual without the proper NERC certification credential may not independently fill a required operating position. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC-certified individual filling the required position.
 - M1.2** During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four hours.

D. Compliance

1. Compliance Monitoring Process

Periodic Review: An on-site review will be conducted every three years. Staffing schedules and certification numbers will be compared to ensure that positions that require NERC-certified operating personnel were covered as required. Certification numbers from the Transmission Operator, Balancing Authority, and Reliability Coordinator will be compared with NERC records.

Exception Reporting: Any violation of the standard must be reported to the Regional Reliability Organization, who will inform the NERC Vice President-Compliance, indicating the reason for the non-compliance and the mitigation plans taken.

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Timeframe

One calendar month without a violation.

1.3. Data Retention

Present calendar year plus previous calendar year staffing plan.

1.4. Additional Compliance Information

Not specified.

2. Levels of Non-Compliance

2.1. Level 1: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 0 hours and up to 12 hours during a one calendar month period for each required position in the staffing plan.

2.2. Level 2: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 12 hours and up to 36 hours during a one calendar month period for each required position in the staffing plan.

2.3. Level 3: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 36 hours and up to 72 hours during a one-month calendar period for each required position in the staffing plan.

2.4. Level 4: The Transmission Operator, Balancing Authority, or Reliability Coordinator did not meet the requirement for a total time greater than 72 hours during a one calendar month period for each required position in the staffing plan.

E. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New

Implementation Plan for PER-003-1 — Operating Personnel Credentials Standard

Prerequisite Approvals

There are no other reliability standards or Standard Authorization Requests (SARs), in progress or approved, that must be implemented before this standard can be implemented.

Modified Standards

PER-003-0 should be retired when PER-003-1 becomes effective.

Compliance with Standards

Once this standard becomes effective, the responsible entities identified in the applicability section of the standard must comply with the requirements. These include:

- Reliability Coordinator
- Transmission Operator
- Balancing Authority

Proposed Effective Date

Compliance with PER-003-1 shall be implemented as follows:

- In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter, twelve months after Board of Trustees adoption.

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. The Standards Committee approved the SAR for posting on July 12, 2007.
2. The SAR was posted for industry comment from July 17, 2007 through August 15, 2007.
3. Reply comments and a revised SAR were posted for a second industry comment period from January 2, 2008 through January 31, 2008.
4. Standards Committee approved moving the project into the standards development phase on April 10, 2008.
5. The Standards Committee appointed the Standard Drafting Team on June 13, 2008.
6. The draft Standard was posted for Industry comment on October 21, 2009.
7. The SDT responded to comments received on April 30, 2010.
8. The Standards Committee authorized the draft Standard to have a concurrent posting for industry comment and initial ballot or pre-ballot review on July 30, 2010.
9. The draft standard was posted for a second comment period and pre-ballot review on August 10, 2010.
10. The SDT responded to comments received from the formal comment period, initial ballot and non-binding poll of VRFs and VSLs on November 12, 2010.

Proposed Action Plan and Description of Current Draft:

This is the final posting of the proposed standard for re-circulation ballot.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Conduct a recirculation ballot for ten days.	December, 2010
2. BOT adoption.	December, 2010

A. Introduction

1. **Title:** **Operating Personnel Credentials**
2. **Number:** **PER-003-1**
3. **Purpose:** To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System.
4. **Applicability:**
 - 4.1. Reliability Coordinator
 - 4.2. Transmission Operator
 - 4.3. Balancing Authority
5. **Effective Date:**
 - 5.1. In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after Board of Trustees adoption.

B. Requirements

- R1.** Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]

1.1. Areas of Competency

- 1.1.1. Resource and demand balancing
- 1.1.2. Transmission operations
- 1.1.3. Emergency preparedness and operations
- 1.1.4. System operations
- 1.1.5. Protection and control
- 1.1.6. Voltage and reactive
- 1.1.7. Interchange scheduling and coordination
- 1.1.8. Interconnection reliability operations and coordination

¹ Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

2.1. Areas of Competency

- 2.1.1. Transmission operations
- 2.1.2. Emergency preparedness and operations
- 2.1.3. System operations
- 2.1.4. Protection and control
- 2.1.5. Voltage and reactive

2.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator

R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

3.1. Areas of Competency

- 3.1.1. Resources and demand balancing
- 3.1.2. Emergency preparedness and operations
- 3.1.3. System operations
- 3.1.4. Interchange scheduling and coordination

3.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator

C. Measures

M1. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions

¹ Non-NERC certified personnel performing any reliability-related task of an operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3):

- M1.1** A list of Real-time operating positions.
- M1.2** A list of System Operators assigned to its Real-time operating positions.
- M1.3** A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency.
- M1.4** Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Authority

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

1.2. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.3. Data Retention

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall keep data or evidence to show compliance for three years or since its last compliance audit, whichever time frame is the greatest, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Reliability Coordinator, Transmission Operator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent records.

1.4. Additional Compliance Information

None.

2.0 Violation Severity Levels

R#	Lower VSL	Medium VSL	High VSL	Severe VSL
R1				The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R1.
R2				The Transmission Operator failed to staff each Real-time operating position performing Transmission Operator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R2, Part 2.2.
R3				The Balancing Authority failed to staff each Real-time operating position performing Balancing Authority reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R3, Part 3.2.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1		Complete revision under Project 2007-04	Revision

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

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Proposed Action Plan and Description of Current Draft:

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Future Development Plan:

Anticipated Actions	Anticipated Date
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2. BOT adoption.	December, 2010

A. Introduction

1. **Title:** **Operating Personnel Credentials**
2. **Number:** **PER-003-1**
3. **Purpose:** To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System.
4. **Applicability:**
 - 4.1. Reliability Coordinator
 - 4.2. Transmission Operator
 - 4.3. Balancing Authority
5. **Effective Date:**
 - 5.1. In those jurisdictions where regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective the first calendar day of the first calendar quarter twelve months after Board of Trustees adoption.

B. Requirements

- R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]

1.1. Areas of Competency

- 1.1.1. Resource and demand balancing
- 1.1.2. Transmission operations
- 1.1.3. Emergency preparedness and operations
- 1.1.4. System operations
- 1.1.5. Protection and control
- 1.1.6. Voltage and reactive
- 1.1.7. Interchange scheduling and coordination
- 1.1.8. Interconnection reliability operations and coordination

¹ Non-NERC certified personnel ~~performing any reliability-related~~~~learning or observing the~~ tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator ~~stationed~~ at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

R2. Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

2.1. Areas of Competency

- 2.1.1. Transmission operations
- 2.1.2. Emergency preparedness and operations
- 2.1.3. System operations
- 2.1.4. Protection and control
- 2.1.5. Voltage and reactive

2.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Transmission Operator

R3. Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾: [*Risk Factor: High*][*Time Horizon: Real-time Operations*]:

3.1. Areas of Competency

- 3.1.1. Resources and demand balancing
- 3.1.2. Emergency preparedness and operations
- 3.1.3. System operations
- 3.1.4. Interchange scheduling and coordination

3.2. Certificates

- Reliability Operator
- Balancing, Interchange and Transmission Operator
- Balancing and Interchange Operator

C. Measures

M1. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions

¹ Non-NERC certified personnel ~~performing learning or observing any the reliability-related~~ tasks of an operating position must be under the direct supervision of a NERC Certified System Operator ~~stationed~~ at that operating position: ~~the NERC Certified System Operator at that operating position who~~ has ~~ultimate~~ ~~the sole~~ responsibility for the performance of the reliability-related tasks.

performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate (R1, R2, R3):

- M1.1** A list of Real-time operating positions.
- M1.2** A list of System Operators assigned to its Real-time operating positions.
- M1.3** A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency.
- M1.4** Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Authority

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

1.2. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.3. Data Retention

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall keep data or evidence to show compliance for three years or since its last compliance audit, whichever time frame is the greatest, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Reliability Coordinator, Transmission Operator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent records.

1.4. Additional Compliance Information

None.

2.0 Violation Severity Levels

R#	Lower VSL	Medium VSL	High VSL	Severe VSL
R1				The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R1.
R2				The Transmission Operator failed to staff each Real-time operating position performing Transmission Operator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R2, Part 2.2.
R3				The Balancing Authority failed to staff each Real-time operating position performing Balancing Authority reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R3, Part 3.2.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1		Complete revision under Project 2007-04	Revision



NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Standards Announcement Recirculation Ballot Window Opens December 2-13, 2010

Now available at: <https://standards.nerc.net/CurrentBallots.aspx>

Project 2007-04: Certifying System Operators

A recirculation ballot window for standard PER-003-1 — Operating Personnel Credentials will be open **on Thursday, December 2nd until 8 p.m. Eastern on Monday, December 13, 2010.**

Instructions

Members of the ballot pools associated with this project may log in and submit their votes from the following page: <https://standards.nerc.net/CurrentBallots.aspx>

Ballot Process

The Standards Committee encourages all members of the ballot pool to review the consideration of comments submitted during the last ballot window. In the recirculation ballot, votes are counted by exception only — if a ballot pool member does not submit a revision to that member's original vote, the vote remains the same as in the first ballot. Members of the ballot pool may:

- Reconsider and change their votes from the first ballot
- Vote in the second ballot even if they did not vote on the first ballot
- Take no action if they do not want to change their original vote

Additional Information

The Standard Processes Manual allows drafting teams to make changes following an initial or successive ballot with a goal of improving the quality of a standard, provided those changes do not alter the applicability or scope of the proposed standard. Following the initial ballot the Certifying System Operators drafting team modified the footnotes in the standard for improved clarity. A redline version of the standard showing the modified footnotes has been posted for stakeholder review.

Note that PER-003-1 reflects extensive changes to the previously approved version of the standard (PER-003-0), making it impractical to post a "redline" of proposed PER-003-1 that shows the changes to the last balloted version of the standard. For stakeholders who want to see the last approved version of PER-003-0, the standard has been posted on the [Certifying SOs project page](#) for easy reference.

Next Steps

Voting results will be posted and announced after the ballot window closes. If approved, the standards, Violation Risk Factors, Violation Severity Levels and associated implementation plan will be submitted to the Board of Trustees.

Project Background

PER-003-0, a “Version 0” standard, requires each Reliability Coordinator, Balancing Authority, and Transmission Operator to staff its real-time operating positions with personnel that have a NERC certification credential. The standard is being revised to address the directives from FERC Order 693 and industry comments from Version 0.

Further details are available on the project page:

http://www.nerc.com/filez/standards/Certifying_SOs_Project_2007-04.html

Applicability of Standards in Project

Balancing Authority

Reliability Coordinator

Transmission Operator

Standards Process

The [Standard Processes Manual](#) contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

*For more information or assistance, please contact Monica Benson,
Standards Process Administrator, at monica.benson@nerc.net or at 609.452.8060.*

North American Electric Reliability Corporation
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Ballot Results	
Ballot Name:	Project 2007-04 - Certifying System Operators - PER-003_rc
Ballot Period:	12/2/2010 - 12/13/2010
Ballot Type:	recirculation
Total # Votes:	276
Total Ballot Pool:	289
Quorum:	95.50 % The Quorum has been reached
Weighted Segment Vote:	86.91 %
Ballot Results:	The Standard has Passed

Summary of Ballot Results									
Segment	Ballot Pool	Segment Weight	Affirmative		Negative		Abstain # Votes	No Vote	
			# Votes	Fraction	# Votes	Fraction			
1 - Segment 1.	90	1	72	0.857	12	0.143	4	2	
2 - Segment 2.	11	1	8	0.8	2	0.2	0	1	
3 - Segment 3.	63	1	48	0.8	12	0.2	2	1	
4 - Segment 4.	19	1	13	0.813	3	0.188	3	0	
5 - Segment 5.	53	1	39	0.886	5	0.114	4	5	
6 - Segment 6.	36	1	28	0.875	4	0.125	1	3	
7 - Segment 7.	0	0	0	0	0	0	0	0	
8 - Segment 8.	5	0.4	4	0.4	0	0	0	1	
9 - Segment 9.	4	0.4	4	0.4	0	0	0	0	
10 - Segment 10.	8	0.6	6	0.6	0	0	2	0	
Totals	289	7.4	222	6.431	38	0.97	16	13	

Individual Ballot Pool Results				
Segment	Organization	Member	Ballot	Comments
1	Allegheny Power	Rodney Phillips	Negative	View
1	Ameren Services	Kirit S. Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Affirmative	View
1	American Transmission Company, LLC	Jason Shaver	Negative	View
1	Arizona Public Service Co.	Robert D Smith	Affirmative	
1	Associated Electric Cooperative, Inc.	John Bussman	Affirmative	View
1	Avista Corp.	Scott Kinney	Affirmative	
1	Baltimore Gas & Electric Company	John J. Moraski	Affirmative	View

1	BC Transmission Corporation	Gordon Rawlings	Affirmative	
1	Beaches Energy Services	Joseph S. Stonecipher	Abstain	
1	Black Hills Corp	Eric Egge	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	
1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Negative	View
1	CenterPoint Energy	Paul Rocha	Affirmative	View
1	Central Maine Power Company	Brian Conroy	Affirmative	
1	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Chang G Choi	Affirmative	
1	City of Vero Beach	Randall McCamish	Affirmative	
1	Clark Public Utilities	Jack Stamper	Affirmative	
1	Cleco Power LLC	Danny McDaniel	Affirmative	View
1	Colorado Springs Utilities	Paul Morland	Affirmative	
1	Commonwealth Edison Co.	Gregory Campbell	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Abstain	
1	Dairyland Power Coop.	Robert W. Roddy	Affirmative	
1	Dominion Virginia Power	John K Loftis	Affirmative	
1	Duke Energy Carolina	Douglas E. Hils	Affirmative	
1	E.ON U.S.	Larry Monday	Negative	
1	East Kentucky Power Coop.	George S. Carruba	Affirmative	
1	Empire District Electric Co.	Ralph Frederick Meyer	Affirmative	
1	Entergy Corporation	George R. Bartlett	Affirmative	
1	FirstEnergy Energy Delivery	Robert Martinko	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Affirmative	
1	Georgia Transmission Corporation	Harold Taylor, II		
1	Great River Energy	Gordon Pietsch	Negative	View
1	Hoosier Energy Rural Electric Cooperative, Inc.	Robert Solomon	Affirmative	
1	Hydro One Networks, Inc.	Ajay Garg	Affirmative	
1	Hydro-Quebec TransEnergie	Bernard Pelletier	Affirmative	
1	International Transmission Company Holdings Corp	Michael Moltane	Negative	View
1	Kansas City Power & Light Co.	Michael Gammon	Affirmative	
1	Lake Worth Utilities	Walt Gill	Abstain	
1	Lakeland Electric	Larry E Watt	Affirmative	
1	Lee County Electric Cooperative	John W Delucca	Affirmative	
1	Long Island Power Authority	Robert Ganley	Affirmative	
1	Manitoba Hydro	Michelle Rheault	Affirmative	
1	MEAG Power	Danny Dees	Affirmative	
1	MidAmerican Energy Co.	Terry Harbour	Negative	View
1	Minnkota Power Coop. Inc.	Richard Burt	Affirmative	
1	National Grid	Saurabh Saksena	Affirmative	
1	Nebraska Public Power District	Richard L. Koch	Affirmative	
1	New Brunswick Power Transmission Corporation	Randy MacDonald	Affirmative	
1	New York State Electric & Gas Corp.	Henry G. Masti		
1	Northeast Utilities	David H. Boguslawski	Affirmative	
1	Northern Indiana Public Service Co.	Kevin M Largura	Affirmative	
1	NorthWestern Energy	John Canavan	Affirmative	
1	Ohio Valley Electric Corp.	Robert Matthey	Affirmative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber	Affirmative	
1	Omaha Public Power District	Douglas G Peterchuck	Affirmative	
1	Oncor Electric Delivery	Michael T. Quinn	Affirmative	
1	Orlando Utilities Commission	Brad Chase	Abstain	View
1	Otter Tail Power Company	Lawrence R. Larson	Negative	View
1	Pacific Gas and Electric Company	Chifong L. Thomas	Affirmative	
1	PacifiCorp	Mark Sampson	Affirmative	
1	PECO Energy	Ronald Schloendorn	Affirmative	
1	Platte River Power Authority	John C. Collins	Affirmative	
1	Portland General Electric Co.	Frank F. Afranji	Affirmative	View
1	Potomac Electric Power Co.	David Thorne	Affirmative	
1	PPL Electric Utilities Corp.	Brenda L Truhe	Affirmative	
1	Progress Energy Carolinas	Sammy Roberts	Affirmative	
1	Public Service Company of New Mexico	Laurie Williams	Affirmative	
1	Public Service Electric and Gas Co.	Kenneth D. Brown	Affirmative	
1	Puget Sound Energy, Inc.	Catherine Koch	Negative	View
1	Rochester Gas and Electric Corp.	John C. Allen	Affirmative	
1	Sacramento Municipal Utility District	Tim Kelley	Affirmative	

1	Salt River Project	Robert Kondziolka	Affirmative	
1	Santee Cooper	Terry L. Blackwell	Affirmative	
1	SCE&G	Henry Delk, Jr.	Affirmative	
1	Seattle City Light	Pawel Krupa	Affirmative	
1	Sierra Pacific Power Co.	Rich Salgo	Affirmative	View
1	South Texas Electric Cooperative	Richard McLeon	Affirmative	
1	Southern California Edison Co.	Dana Cabbell	Affirmative	
1	Southern Company Services, Inc.	Horace Stephen Williamson	Negative	View
1	Southwest Transmission Cooperative, Inc.	James L. Jones	Affirmative	
1	Southwestern Power Administration	Gary W Cox	Affirmative	
1	Sunflower Electric Power Corporation	Noman Lee Williams	Affirmative	
1	Tampa Electric Co.	Beth Young	Negative	
1	Tennessee Valley Authority	Larry Akens	Affirmative	
1	Tri-State G & T Association, Inc.	Keith V. Carman	Affirmative	
1	Tucson Electric Power Co.	John Tolo	Affirmative	View
1	United Illuminating Co.	Jonathan Appelbaum	Affirmative	
1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Xcel Energy, Inc.	Gregory L Pieper	Negative	View
2	Alberta Electric System Operator	Mark B Thompson	Negative	View
2	BC Hydro	Venkataramakrishnan Vinnakota	Affirmative	
2	California ISO	Gregory Van Pelt	Affirmative	
2	Electric Reliability Council of Texas, Inc.	Chuck B Manning	Affirmative	
2	Independent Electricity System Operator	Kim Warren	Affirmative	
2	ISO New England, Inc.	Kathleen Goodman	Affirmative	
2	Midwest ISO, Inc.	Jason L Marshall	Affirmative	View
2	New Brunswick System Operator	Alden Briggs	Affirmative	
2	New York Independent System Operator	Gregory Campoli		
2	PJM Interconnection, L.L.C.	Tom Bowe	Affirmative	
2	Southwest Power Pool	Charles H Yeung	Negative	View
3	Alabama Power Company	Richard J. Mandes	Negative	View
3	Allegheny Power	Bob Reeping	Negative	View
3	Ameren Services	Mark Peters	Affirmative	
3	American Electric Power	Raj Rana	Affirmative	
3	Anaheim Public Utilities Dept.	Kelly Nguyen	Abstain	
3	APS	Steven Norris	Affirmative	
3	Atlantic City Electric Company	James V. Petrella	Affirmative	
3	BC Hydro and Power Authority	Pat G. Harrington	Affirmative	
3	Blue Ridge Power Agency	Duane S. Dahlquist	Affirmative	
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	
3	City of Clewiston	Lynne Mila	Affirmative	
3	City of Farmington	Linda R. Jacobson	Affirmative	
3	City of Green Cove Springs	Gregg R Griffin	Affirmative	
3	City of Leesburg	Phil Janik	Affirmative	
3	Cleco Corporation	Michelle A Corley	Affirmative	View
3	ComEd	Bruce Krawczyk	Affirmative	
3	Consolidated Edison Co. of New York	Peter T Yost	Abstain	
3	Constellation Energy	Carolyn Ingersoll		
3	Consumers Energy	David A. Lapinski	Negative	View
3	Cowlitz County PUD	Russell A Noble	Affirmative	
3	Delmarva Power & Light Co.	Michael R. Mayer	Affirmative	
3	Dominion Resources Services	Michael F Gildea	Affirmative	
3	Duke Energy Carolina	Henry Ernst-Jr	Affirmative	
3	East Kentucky Power Coop.	Sally Witt	Affirmative	
3	Entergy	Joel T Plessinger	Affirmative	
3	FirstEnergy Solutions	Kevin Querry	Affirmative	
3	Florida Power Corporation	Lee Schuster	Affirmative	
3	Georgia Power Company	Anthony L Wilson	Negative	View
3	Georgia System Operations Corporation	R Scott S. Barfield-McGinnis	Affirmative	
3	Great River Energy	Sam Kokkinen	Negative	
3	Gulf Power Company	Gwen S Frazier	Negative	View
3	Hydro One Networks, Inc.	Michael D. Penstone	Affirmative	
3	Kansas City Power & Light Co.	Charles Locke	Affirmative	
3	Kissimmee Utility Authority	Gregory David Woessner	Affirmative	
3	Louisville Gas and Electric Co.	Charles A. Freibert	Negative	View
3	Manitoba Hydro	Greg C. Parent	Affirmative	
3	MidAmerican Energy Co.	Thomas C. Mielnik	Negative	

3	Mississippi Power	Don Horsley	Negative	View
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Affirmative	
3	Muscatine Power & Water	John S Bos	Affirmative	View
3	Nebraska Public Power District	Tony Eddleman	Affirmative	
3	New York Power Authority	Marilyn Brown	Affirmative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Affirmative	
3	Northern Indiana Public Service Co.	William SeDoris	Affirmative	
3	Orlando Utilities Commission	Ballard Keith Muters	Affirmative	
3	PacifiCorp	John Apperson	Affirmative	
3	PECO Energy an Exelon Co.	Vincent J. Catania	Affirmative	
3	Platte River Power Authority	Terry L Baker	Affirmative	
3	PNM Resources	Michael Mertz	Affirmative	
3	Potomac Electric Power Co.	Robert Reuter	Affirmative	
3	Progress Energy Carolinas	Sam Waters	Affirmative	
3	Public Service Electric and Gas Co.	Jeffrey Mueller	Affirmative	
3	Sacramento Municipal Utility District	James Leigh-Kendall	Affirmative	
3	Salt River Project	John T. Underhill	Affirmative	
3	San Diego Gas & Electric	Scott Peterson	Negative	View
3	Santee Cooper	Zack Dusenbury	Affirmative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	South Carolina Electric & Gas Co.	Hubert C. Young	Affirmative	
3	Tacoma Public Utilities	Travis Metcalfe	Affirmative	
3	Tampa Electric Co.	Ronald L Donahey	Negative	
3	Tennessee Valley Authority	Ian S Grant	Affirmative	
3	Wisconsin Electric Power Marketing	James R. Keller	Affirmative	View
3	Xcel Energy, Inc.	Michael Ibold	Negative	View
4	Alliant Energy Corp. Services, Inc.	Kenneth Goldsmith	Affirmative	
4	American Municipal Power - Ohio	Kevin Koloini	Abstain	
4	City of Clewiston	Kevin McCarthy	Affirmative	
4	City of New Smyrna Beach Utilities Commission	Timothy Beyrle	Affirmative	
4	Consumers Energy	David Frank Ronk	Negative	View
4	Cowlitz County PUD	Rick Syring	Affirmative	
4	Fort Pierce Utilities Authority	Thomas W. Richards	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Affirmative	
4	Integrus Energy Group, Inc.	Christopher Plante	Abstain	
4	LaGen	Richard Comeaux	Abstain	
4	Madison Gas and Electric Co.	Joseph G. DePoorter	Negative	View
4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Public Utility District No. 1 of Douglas County	Henry E. LuBean	Negative	View
4	Sacramento Municipal Utility District	Mike Ramirez	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R Wallace	Affirmative	
4	South Mississippi Electric Power Association	Steve McElhaney	Affirmative	
4	Tacoma Public Utilities	Keith Morisette	Affirmative	
4	Wisconsin Energy Corp.	Anthony Jankowski	Affirmative	View
5	AEP Service Corp.	Brock Ondayko	Affirmative	
5	Amerenue	Sam Dwyer	Affirmative	
5	APS	Mel Jensen	Affirmative	
5	BC Hydro and Power Authority	Clement Ma	Affirmative	
5	Black Hills Corp	George Tatar	Affirmative	
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	
5	City and County of San Francisco	Daniel Mason	Negative	View
5	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Max Emrick	Affirmative	
5	City of Tallahassee	Alan Gale	Affirmative	
5	Cleco Power	Stephanie Huffman	Affirmative	View
5	Consolidated Edison Co. of New York	Wilket (Jack) Ng	Abstain	
5	Consumers Energy	James B Lewis	Negative	View
5	Cowlitz County PUD	Bob Essex	Affirmative	
5	Detroit Edison Company	Christy Wicke	Affirmative	
5	Dominion Resources, Inc.	Mike Garton	Affirmative	
5	Duke Energy	Dale Q Goodwine	Affirmative	
5	East Kentucky Power Coop.	Stephen Ricker	Affirmative	
5	Energy Northwest - Columbia Generating Station	Doug Ramey	Abstain	
5	Entergy Corporation	Stanley M Jaskot	Affirmative	
5	Exelon Nuclear	Michael Korchynsky	Affirmative	

5	Great River Energy	Cynthia E Sulzer		
5	Green Country Energy	Greg Froehling	Affirmative	
5	Horizon Wind Energy	Brent Hebert	Affirmative	
5	Indeck Energy Services, Inc.	Rex A Roehl	Negative	
5	Kissimmee Utility Authority	Mike Blough	Affirmative	
5	Lakeland Electric	Thomas J Trickey	Affirmative	
5	Louisville Gas and Electric Co.	Charlie Martin		
5	Manitoba Hydro	S N Fernando	Affirmative	
5	MEAG Power	Steven Grego	Affirmative	
5	MidAmerican Energy Co.	Christopher Schneider	Negative	View
5	Nebraska Public Power District	Don Schmit	Affirmative	
5	New York Power Authority	Gerald Mannarino	Affirmative	
5	Northern Indiana Public Service Co.	Michael K Wilkerson	Affirmative	
5	Occidental Chemical	Michelle DAntuono	Abstain	
5	Orlando Utilities Commission	Richard Kinias	Affirmative	View
5	PacifiCorp	Sandra L. Shaffer	Affirmative	
5	Portland General Electric Co.	Gary L Tingley	Affirmative	
5	PowerSouth Energy Cooperative	Tim Hattaway	Affirmative	
5	PPL Generation LLC	Annette M Bannon	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis	Affirmative	
5	PSEG Power LLC	Jerzy A Slusarz		
5	RRI Energy	Thomas J. Bradish	Affirmative	
5	Sacramento Municipal Utility District	Bethany Hunter	Affirmative	
5	Salt River Project	Glen Reeves		
5	Seattle City Light	Michael J. Haynes	Affirmative	
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins	Affirmative	
5	South Mississippi Electric Power Association	Jerry W Johnson	Affirmative	
5	Tampa Electric Co.	RJames Rocha	Negative	
5	Tennessee Valley Authority	George T. Ballew	Affirmative	
5	U.S. Army Corps of Engineers Northwestern Division	Karl Bryan	Affirmative	
5	U.S. Bureau of Reclamation	Martin Bauer P.E.	Abstain	
5	Wisconsin Electric Power Co.	Linda Horn	Affirmative	View
5	Wisconsin Public Service Corp.	Leonard Rentmeester		
6	AEP Marketing	Edward P. Cox	Affirmative	
6	Arizona Public Service Co.	Justin Thompson	Affirmative	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	
6	Cleco Power LLC	Robert Hirschak	Affirmative	View
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Abstain	
6	Constellation Energy Commodities Group	Brenda Powell	Affirmative	
6	Dominion Resources, Inc.	Louis S Slade	Affirmative	
6	Duke Energy Carolina	Walter Yeager	Affirmative	
6	Entergy Services, Inc.	Terri F Benoit	Affirmative	
6	Eugene Water & Electric Board	Daniel Mark Bedbury	Affirmative	
6	Exelon Power Team	Pulin Shah	Affirmative	
6	FirstEnergy Solutions	Mark S Travaglianti	Affirmative	
6	Florida Municipal Power Pool	Thomas E Washburn	Affirmative	
6	Florida Power & Light Co.	Silvia P Mitchell	Affirmative	
6	Lakeland Electric	Paul Shipps	Affirmative	
6	Lincoln Electric System	Eric Ruskamp	Affirmative	
6	Louisville Gas and Electric Co.	Daryn Barker	Negative	View
6	Manitoba Hydro	Daniel Prowse	Affirmative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Affirmative	View
6	NRG Energy, Inc.	Alan R. Johnson	Negative	View
6	Omaha Public Power District	David Ried	Affirmative	
6	PacifiCorp	Scott L Smith	Affirmative	
6	PPL EnergyPlus LLC	Mark A Heimbach	Affirmative	
6	Progress Energy	John T Sturgeon	Affirmative	
6	PSEG Energy Resources & Trade LLC	James D. Hebson	Affirmative	
6	Public Utility District No. 1 of Chelan County	Hugh A. Owen		
6	Salt River Project	Mike Hummel		
6	Santee Cooper	Suzanne Ritter	Affirmative	
6	Seattle City Light	Dennis Sismaet	Affirmative	View
6	Seminole Electric Cooperative, Inc.	Trudy S. Novak	Affirmative	
6	South Carolina Electric & Gas Co.	Matt H Bullard		
6	Tacoma Public Utilities	Michael C Hill	Affirmative	
6	Tampa Electric Co.	Joann Wehle	Negative	

6	Tennessee Valley Authority	Marjorie S. Parsons	Affirmative	
6	Western Area Power Administration - UGP Marketing	John Stonebarger	Affirmative	
6	Xcel Energy, Inc.	David F. Lemmons	Negative	View
8		Roger C Zaklukiewicz	Affirmative	
8		James A Maenner	Affirmative	View
8		Edward C Stein	Affirmative	
8	JDRJC Associates	Jim D. Cyrulewski	Affirmative	
8	Power Energy Group LLC	Peggy Abbadini		
9	California Energy Commission	William Mitchell Chamberlain	Affirmative	
9	Commonwealth of Massachusetts Department of Public Utilities	Donald E. Nelson	Affirmative	
9	National Association of Regulatory Utility Commissioners	Diane J. Barney	Affirmative	
9	Oregon Public Utility Commission	Jerome Murray	Affirmative	
10	Florida Reliability Coordinating Council	Linda Campbell	Abstain	
10	New York State Reliability Council	Alan Adamson	Affirmative	
10	Northeast Power Coordinating Council, Inc.	Guy V. Zito	Affirmative	
10	ReliabilityFirst Corporation	Jacque Smith	Abstain	
10	SERC Reliability Corporation	Carter B Edge	Affirmative	
10	Southwest Power Pool Regional Entity	Stacy Dochoda	Affirmative	
10	Texas Reliability Entity	Larry D. Grimm	Affirmative	
10	Western Electricity Coordinating Council	Louise McCarren	Affirmative	

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Consideration of Comments on Initial Ballot — Certifying System Operators (Project 2007-04)
Date of Initial Ballot: December 2-13, 2010

Summary Consideration:

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Herb Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

Voter	Entity	Segment	Vote	Comment
Rodney Phillips	Allegheny Power	1	Negative	This standard has not successfully answered the question of who is required to be certified.
Paul B. Johnson	American Electric Power	1	Affirmative	AEP recommends that footnote number 1 should be removed from this standard. If it is to remain, AEP recommends that the language should be as follows: The NERC Certified System Operator has ultimate responsibility for the performance of the reliability-related tasks. If our recommendations are not accepted, then the term "operating position" needs to be formally defined or removed. Footnote change is acceptable.
Jason Shaver	American Transmission Company, LLC	1	Negative	ATC supports the change to M1.3, however, the change to Footnote 1 has added more confusion rather than added clarity. To be clear, Footnote 1 should be revised to read, "Non-NERC certified System Operators in-training performing any reliability related tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position in the Control Center; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related task."
John Bussman	Associated Electric Cooperative, Inc.	1	Affirmative	Comments have been addressed
John J. Moraski	Baltimore Gas & Electric Company	1	Affirmative	(See comment form for BGE comments)
Tony Kroskey	Brazos Electric Power Cooperative, Inc.	1	Negative	Additional clarification is needed.

¹ The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.

Voter	Entity	Segment	Vote	Comment
Paul Rocha	CenterPoint Energy	1	Affirmative	CenterPoint Energy was pleased with the revisions that clarified the direct supervision of non-NERC certified personnel as well as the changes to M1.3. Therefore, CenterPoint Energy is changing its vote from "negative" to "affirmative".
Danny McDaniel	Cleco Power LLC	1	Affirmative	None
Gordon Pietsch	Great River Energy	1	Negative	The definition of "System Operator" in the NERC Glossary includes "Generator Operator", however generator operators are not covered in any specific requirement in the standard. We believe the term "Generator Operator" should be removed from the definition of "System Operator", or specifically noted as not applicable for this standard, to remove any ambiguity in the implementation of this standard. GRE believes that it is important to note that the Generator Operator is the Registered Entity that performs the functions as listed in the NERC Statement of Compliance Registry Criteria (Revision 5.0) and not the person operating the generator. If the drafting team believes that System Operators require a valid NERC Certificate to fill Real-time operating positions responsible for control of the BES and that they be certified through the NERC System Operator Certification Program and that these System Operators meet certain competencies then it should be a requirement of the ERO to develop a System Operator Certification program that includes these competencies where by obtaining the requisite certification the System Operator would have demonstrated these competencies. While some argue that standards cannot apply to the ERO, we would point out that the results-based standards approach approved by the NERC BOT does appear to allow the ERO to be set as an applicable entity. An example of this is the recently posted Project 2009-01 Impact Event and Disturbance Assessment, Analysis, and Reporting which includes a number of requirements applicable to the ERO and is following the results-based approach.
Michael Moltane	International Transmission Company Holdings Corp	1	Negative	The list of skills added, generally speaking, give little value to this revision as they do nothing but define general areas that are included in the NERC exam. The compliance comes from being certified, and showing only certified folks are working; therefore our compliance proof will not change.
Terry Harbour	MidAmerican Energy Co.	1	Negative	MidAmerican believes that if wording about "positions performing Transmission Operator reliability-related tasks" cannot be included or the PER-003 standard effective date must be extended out beyond the current PER-005 date to avoid advancing incorrectly advancing NERC compliance on reliability related tasks already identified in a FERC Order.
Brad Chase	Orlando Utilities Commission	1	Abstain	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main

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				requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Lawrence R. Larson	Otter Tail Power Company	1	Negative	The proposed purpose statement does not align with the requirements as proposed, and the proposed measurements only focus on the Registered Entity (RE) ensuring each real-time operating position is staffed with properly NERC certified staff according to the function performed, with no reference of any measurements to the competency lists identified in each requirement. A NERC System operator certification credential does not alone guarantee operational competency. Competency encompasses a combination of knowledge, skills, and behaviors to perform a specific role. Furthermore the NERC System Operator Certification Program is a knowledge based assessment, as it does not clearly define the assessment of skills and behaviors related to the high-level competencies listed in the certification exam content outlines. This is further demonstrated by the Standard Drafting Team stating in consideration of comments received on the draft, under question 10A, that "Certification ensures that System Operators with responsibility for real-time operations have a minimum level of knowledge that assists in their achieving reliable operations." The current verbiage leaves too much open for interpretation, and should be further defined to alleviate any inconsistency in the application and interpretation of this standard. This standard should focus on requiring System Operators (associated with RC, TOP and BA) to be NERC certified and should not address the competency list per function as a requirement of the RC, TOP, and BA Function. This standard should instead address this issue through the NERC system operator certification program as administered through the NERC Personnel Certification Governance Committee (PCGC). The PCGC has a well defined process that ensures the applicability of competencies to each credential through the use of job analysis, a well established process as provided by National Organization for Competency Assurance (NOCA) and American National Standard Institute (ANSI) guidelines. The defined requirements as listed 1 through 3 (with the omission of the competency lists) could stand, thus ensuring that the RE of the function is required to staff the real-time operating positions with individuals currently certified with the proper NERC Certificates as defined in each requirement.
Frank F. Afranji	Portland General Electric Co.	1	Affirmative	I agree with the changes proposed.

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Catherine Koch	Puget Sound Energy, Inc.	1	Negative	PSE appreciates the SDTs need to include the areas of competency described in R1.1 and R2.1 as directed by FERC. However the structure of these competencies are included leave the applicable entities in a vulnerable predicament as what is included in the NERC System Operator Certification program is not in their control. It could be that the program at some point doesn't meet the R1.1 and R2.1 leaving the entities to determine then how best to meet these requirements. We suggest at minimum, that NERC becomes an entity for this this standard is applicable (to be noted in the applicability section) and a sentence describing NERC's role in assuring these competencies are addressed in their program be added. There are other standards such as the CIP standards in which NERC is listed in the applicability section. This would seem to ensure a gap doesn't inadvertently develop. Additionally, the proposed standard uses several capitalized terms without proposing definitions for them, including "NERC System Operator Certification Program", "Reliability Operator, "Balancing, Interchange and Transmission Operator" and "Balancing and Interchange Operator." These terms still need to be defined within the standard at minimum or the NERC Glossary. Also the footnote formulation is different on p. 2 and p. 3. The formulation on p. 3 should be used in both places if we have to use one or the other, but an even better formulation is set forth in M1.1 of the current standard. Finally, a small issue is that the subsections to the requirements are not labeled with a preceeding "R" for consistency with other standards.
Rich Salgo	Sierra Pacific Power Co.	1	Affirmative	The SDT satisfactorily addressed our prior concern that an audit approach could conceivably require some yet-to-be-defined demonstration of competency, beyond the evidence of valid certification.
Horace Stephen Williamson	Southern Company Services, Inc.	1	Negative	Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the "Areas

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				<p>of Competency” are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section “Areas of Competency” from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to “Areas of Capability” (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that “competency” be changed to “capability”. M1.1 asks for a “list of Real-time operating positions”. Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator’s NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a “list of System Operators assigned to its Real-time operating positions” while M1.4 requests “evidence showing which System Operators were assigned to work in Real-time operating positions.” We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term “NERC Certified” should precede the term “System Operators” in the new combined measure. M1.3 asks for “a copy of each of its System Operator’s NERC Certificate” OR “NERC certificate number with expiration date.” We feel that attempting to maintain a copy of each operator’s certificate could be problematic since only the operator has access to the actual certificate. A simpler solution would be to just maintain a list of NERC certificate numbers and the issuance/expiration dates associated. In the event this information is not readily available from the operator, the employer then has recourse to get confirmation from NERC that an individual in fact holds a valid NERC certificate. (Ref: p.14 of the System Operator Certification Program Manual, updated Nov. 2009) While the current draft is phrased as one or the other, we feel that appearances could be created that an entity is not fully complying with the measure if the copy cannot be produced. Therefore we request that the first part of the statement referencing copies of the certificate be removed and just the list of certificate numbers be used for measure. The revised M1.3 would read “NERC certificate number with issuance & expiration date for each System Operator.” Additional For consistency and to better identify the application of the standard, we suggest changing the title to “Real-time Operating Personnel Credentials” Also for consistency with other standards, we suggest changing the</p>

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				measure numbering to directly reflect the corresponding requirement numbering.
John Tolo	Tucson Electric Power Co.	1	Affirmative	We support these changes
Gregory L Pieper	Xcel Energy, Inc.	1	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
Mark B Thompson	Alberta Electric System Operator	2	Negative	The requirements and measures should be reworded to eliminate the term "competency". The competency lists should not be included in the standard. Competency is ensured by The Systematic Approach to Training required by PER-005, which requires that training programs are developed based on specific tasks.
Jason L Marshall	Midwest ISO, Inc.	2	Affirmative	We don't agree with the response to our comments from the SDT during the initial ballot regarding our suggestion to change the phrase "performing Reliability Coordinator reliability-related tasks" to "meeting its functional obligations". The SDT indicated that the Function Model contains other tasks than reliability related tasks. The primary purpose of the Functional Model is to identify reliability related tasks to facilitate standards development. However, we don't believe this single issue probably warrants us to persist in our negative vote. We continue to believe that the competencies areas should apply to the ERO since it manages the certification program. Contrary to the SDT response to our comments, we don't believe that applying these requirements to the ERO threatens the autonomy of the certification program or weakens it in any way. In fact, identification of the areas of competency and application of the areas of competency to the ERO probably strengthens the program and improves the autonomy because it creates a common set of expectations. We do believe that application of the areas of competency to the responsible entities does create an unnecessary risk that NERC could change the certification program in a way that does not meet those areas of competency and thus, causes the responsible entity to be non-compliant. However, we are confident that NERC will work with the responsible entities to ensure this does not happen.
Charles H Yeung	Southwest Power Pool	2	Negative	We do not support the standard as written. Please refer to the comments submitted by the IRC Standards Review Committee for our concerns.

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Richard J. Mandes	Alabama Power Company	3	Negative	<p>Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the "Areas of Competency" are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section "Areas of Competency" from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to "Areas of Capability" (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that "competency" be changed to "capability". M1.1 asks for a "list of Real-time operating positions". Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator's NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a "list of System Operators assigned to its Real-time operating positions" while M1.4 requests "evidence showing which System Operators were assigned to work in Real-time operating positions." We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term "NERC Certified" should precede the term "System Operators" in the new combined measure. M1.3 asks for "a copy of each of its System Operator's NERC Certificate" OR "NERC certificate number with expiration date." We feel that attempting to</p>

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Bob Reeping	Allegheny Power	3	Negative	This standard has not successfully answered the question of who is required to be certified.
Michelle A Corley	Cleco Corporation	3	Affirmative	None
David A. Lapinski	Consumers Energy	3	Negative	We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.
Anthony L Wilson	Georgia Power Company	3	Negative	Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval.

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Gwen S Frazier	Gulf Power Company	3	Negative	<p>Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program. Therefore we suggest changing the term "competency" to "capability" in each of the three requirements. We believe that listing the specific technical "Areas of Competency" under each requirement will be problematic and very hard to manage. By this method, in order to change a topic on the exam, you would also have to change the standard, creating a new SAR, comment period, ballot, and approval. The technical capabilities are already listed in the exam and should be left there where they are more easily updated. Further issues with this draft listing the "Areas of Competency" are that each listed area is numbered as a sub-requirement of the standard, yet no measure exists that is related to each of these sub-requirements. This in effect creates an issue of how to determine compliance. Therefore, we suggest striking the entire sub-section "Areas of Competency" from each of the three requirements. However, if the drafting team chooses to keep these sections, we request the heading be changed to "Areas of Capability" (in line with our previous comment), that bullets be used instead of numbers, and that the list be moved to the appendix instead of being listed as a sub section in each of the three requirements. Ref M1-4 Again, in line with our previous comment , we request that "competency" be changed to "capability". M1.1 asks for a "list of Real-time operating positions". Those titles are unique to each entity that creates them and will undoubtedly vary across industry. This inconsistency will only lead to confusion during audits as each title will have to be explained for that specific entity. The specific position title should not matter as long as the entity can provide evidence of each operator's NERC certification and specific credentials. Therefore we suggest that M1.1 be removed from the list of measures. M1.2 requests a "list of System Operators assigned to its Real-time operating positions" while M1.4 requests "evidence showing which System Operators were assigned to work in Real-time operating positions." We feel that M1.2 is inherently present in M1.4, since the evidence provided in M1.4 will identify the list of Operators requested in M1.2, and therefore the two measures should be combined. To further clarify the term "NERC</p>

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Charles A. Freibert	Louisville Gas and Electric Co.	3	Negative	<p>Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."</p>
Don Horsley	Mississippi Power	3	Negative	<p>Ref R1-3 We believe the term "competency" should be changed to "capability" to more accurately reflect the purpose of the statement. The certification process assures that an operator is "capable" of performing reliability related tasks, not that the operator is "competent" in performing those tasks. In order to determine "competency", the operator would need to be observed over a long period of time to capture performance measures during various unexpected operating conditions. Therefore, the term "competency" should not be used in describing an operator who has simply been certified through the NERC System Operator Certification Program.</p>

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John S Bos	Muscatine Power & Water	3	Affirmative	MP&W appreciates the thoughtful consideration of the STD on this project.
Scott Peterson	San Diego Gas & Electric	3	Negative	1. The term "NERC System Operator Certification Program" needs to be defined. 2. In R2, "Transmission Operator reliability-related tasks" need to be clearly defined and/or identified. Additionally, the following insertions (in bold red) need to be made to the text: ". . . in the areas listed in R2.1 by obtaining and maintaining one of the following valid NERC certificates listed in R2.2". 3. Measures: How about emergency exceptions? The previous version of this standard, PER-003-0, allows for emergency exceptions in M1.2 during control center transfers. 4. Violation Severity Levels - there has to be some variations to VSLs. Currently, only Severe VSLs are defined. The previous version of this standard, PER-003-0, specified variations in the Levels of Non-Compliance.
James R. Keller	Wisconsin Electric Power Marketing	3	Affirmative	The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1.
Michael Ibold	Xcel Energy, Inc.	3	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, thought the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
David Frank Ronk	Consumers Energy	4	Negative	We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.
Joseph G. DePoorter	Madison Gas and Electric	4	Negative	I agree with the Requirements within the proposed Standard but do not agree with the expansion of the foot note concerning non NERC Certified System Operators. If

Voter	Entity	Segment	Vote	Comment
	Co.			the foot note must be maintained, recommend that it read: "Non-NERC certified personnel in-training performing any reliability related tasks of a real-time operating position must be under the direct supervision of a NERC Certified System Operator; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related task." Rational: Non NERC certified personnel will never have the reliability related responsibilities as a NERC Certified System Operator; there are too many training responsibilities that must be accomplished, even for a NERC Certified System Operator. The SDT proposed foot note may be interpreted in a way that a NERC Certified System Operator must always be at a "station" and could never leave the "station" for any reason.
Henry E. LuBean	Public Utility District No. 1 of Douglas County	4	Negative	Competency requirements and measures are not stated properly and are too difficult to measure adequately. Competency should be determined based on whether certification has been obtained or not in this industry. Each entity must determine whether a person is qualified to work as a system operator and this should not be based on whether competency is declared by some number of hours obtained in a classroom; it would help in determining full qualification but not to prevent it; certification can help in determining qualification but an undefined competency rule just compounds the issue unnecessarily. As for VSLs, being certified (and competent?) or not may or may not directly affect the BPS (BES) and therefore should not be at the highest level; medium or lower would be better. This issue is not as black or white as is a SOL violation and shouldn't be held to the same level of violation or penalty.
Anthony Jankowski	Wisconsin Energy Corp.	4	Affirmative	"The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1."
Daniel Mason	City and County of San Francisco	5	Negative	As reflected in many pre-ballot comments, there is no need for competencies to be included in this standard. Registered Entities have no authority over the areas of competency demonstrated by obtaining and maintaining a valid NERC System Operator certificate. This standard should only require the applicable Registered Entity to staff its Real-time operating positions which are responsible for the control of the Bulk Electric System, with System Operators who possess the appropriate current and valid NERC System Operator certificate. Including competencies in PRC-003-1 only creates potential interpretation issues, added cost of compliance, with no obvious reliability benefit.
Stephanie Huffman	Cleco Power	5	Affirmative	None
James B Lewis	Consumers Energy	5	Negative	We believe footnote (1) to be either unclear or incorrect as written. Of particular concern is the phrase "at that position". This can be taken literally to mean a

Voter	Entity	Segment	Vote	Comment
				qualified operator is required to sit behind the trainee. We believe the Trainee can be sufficiently supervised by a NERC Certified Operator who has the responsibility for overseeing the position and is monitoring the position.
Christopher Schneider	MidAmerican Energy Co.	5	Negative	MidAmerican believes that if wording about "positions performing Transmission Operator reliability-related tasks" cannot be included or the PER-003 standard effective date must be extended out beyond the current PER-005 date to avoid incorrectly advancing NERC compliance on reliability related tasks already identified in a FERC Order.
Richard Kinas	Orlando Utilities Commission	5	Affirmative	It is unclear as to what evidence is required to prove "demonstrated minimum competency" since this level of competency is not defined and is clearly up to interpretation. Additionally it would appear that by the wording of the main requirements, obtaining and maintaining a valid NERC certification itself demonstrates the minimum competencies (through use of the word "by") alleviating the need for the competencies sub-requirements. If evidence of system operators demonstrating minimum competencies is expected to be presented during a compliance audit, entities need to have a reasonable expectation of what will be expected. This is currently not the case.
Linda Horn	Wisconsin Electric Power Co.	5	Affirmative	The NERC Reliability Standards Development Procedure requires that Data Retention indicate the Measurement to which it applies. Please make the correction that the Data Retention applies to M1.
Robert Hirschak	Cleco Power LLC	6	Affirmative	None
Daryn Barker	Louisville Gas and Electric Co.	6	Negative	Operators must successfully complete the NERC Reliability Operator or other appropriate NERC certification process. Including Areas of Competency in the requirements is at best superfluous and at worst confusing. If demonstration of minimum competency is different from the NERC certification process then criteria for demonstrating such competencies need to be set forth in R1, if not then the term should be removed from the requirements. E.ON U.S. suggests the wording of R1 (and R2 and R3 as appropriate) be revised to: 'Each Reliability Coordinator shall staff its real-time operating positions with System Operators who hold a valid NERC Reliability Operator certificate.' References to Areas of Competency and minimum competency relate to certification examination topics and are more appropriately set forth in documents directly related to the content and testing topics of the various certification examinations, e.g., NERC's Rules of Procedure."
Joseph O'Brien	Northern Indiana Public Service Co.	6	Affirmative	Concerns of previous ballot have been addressed by SDT

Voter	Entity	Segment	Vote	Comment
Alan R. Johnson	NRG Energy, Inc.	6	Negative	The standard fails to mention anything about restricting support personnel from being able to perform certain actions, such as control. EMS system support personnel can always use tools to manipulate database parameters, allowing themselves control ability. They all have database tools that are needed to manipulate systems in times of emergency support. The standard should address this.
Dennis Sismaet	Seattle City Light	6	Affirmative	Appropriate to change the language to indicate NERC certification as the requirement.
David F. Lemmons	Xcel Energy, Inc.	6	Negative	Xcel Energy votes negative, primarily because the standard continues to list competencies required, though the entities have no control over what competencies are actually covered in the testing to obtain the certificates listed. The standard should be simple and uncluttered and list the certifications required for each functional entity. If there is a need to list competencies that are covered by the certification process, then the governing criteria for that certification process should be assigned that obligation.
James A Maenner		8	Affirmative	Listing Areas of Competency and Certificates as requirements in the standard does not add much value. Necessary competencies and applicable certificates are described in the NERC System Operator Certification Program manual and are established through the ERO not by individuals required to be certified. In addition, including Areas of Competency and Certificates in the standard may require revisions to the standard when updated in the program.

END OF REPORT

Exhibit E

Standard Drafting Team Roster for Project 2007-04 Certifying System Operators

Project 2007-04 Certifying System Operators

Drafting Team for PER-003-1

Name and Title Affiliation Contact Info	Bio
<p>David J. Carlson Principal Operations Support Specialist Drafting Team Chair</p> <p>Commonwealth Edison Co. 1N301 Swift Road Lombard, Illinois 60148</p> <p>(630) 691-4480 (630) 691-4697 Fx david.carlson@ exeloncorp.com</p>	<p>David J. Carlson is currently a Trainer and Procedure Writer/Coordinator for ComEd Transmission System Operations. David develops and delivers training to real-time control transmission system dispatchers and administers the Transmission System Operations operating and administrative procedures.</p> <p>In total, David has over 17 years combined experience as a real-time transmission system dispatcher and dispatcher trainer. His experience includes Generation dispatch, control area operations and transmission dispatch.</p> <p>Prior to entering transmission dispatch, David taught and evaluated licensed nuclear plant operators in simulators, classrooms and plant walkthroughs. He has experience as a trainer and evaluator, including both continuing training and initial license training. He spent six year as nuclear plant trainer/evaluator with ComEd and prior to that spent 4 years in a similar capacity with General Electric. David worked as a Certification Examiner for approximately 1 year with General Electric performing examinations of Nuclear Plant License candidates with written, simulator and plant walkthrough exams. Graduates of these programs were granted General Electric Senior Reactor Operator or General Electric Reactor Operator Certification Credentials, as appropriate.</p> <p>David is a current member of the NERC Personnel Certification Governance Committee (PCGC) and was the PCGC Chair from its inception in 2003 through 2007.</p> <p>Education:</p> <ul style="list-style-type: none"> - BS Marine Engineering Major, United States Merchant Marine Academy, Kings Point NY, Graduated 1982 - Master of Business Administration, St Ambrose University, Davenport Iowa, Graduated 1993 <p>Professional Credentials Held:</p> <ul style="list-style-type: none"> - Third Assistant Engineer, Steam and Diesel, Any Horsepower, issued by US Coast Guard in 1982, (License Expired) - Senior Reactor Operator Certification, Boiling Water Reactor, issued by General Electric in 1984 and again in 1988 (Certification Expired) - NERC Certified System Operator, Reliability, held since 1998, (Certification current with certificate number RC200904020)
<p>Brad E. Calhoun Training Coordinator</p> <p>CenterPoint Energy P.O. Box 1700 Houston, Texas 77251</p> <p>(713) 207-2320 Fx brad.calhoun@ CenterPointEnergy.com</p>	<p>Brad E. Calhoun is the Real Time Operations, Training Coordinator for CenterPoint Energy, an Independently Owned Utility located in Houston, Texas. Brad started working for the company in 1979, in the transmission construction field. He became a System Operator in 1985 and later was promoted to Training Coordinator.</p> <p>He is an ERCOT Certified System Operator and also holds a NERC Reliability Coordinator certification. He serves as the Vice Chair of the ERCOT Operations Working Group and the Chair of the Nodal Operating Guides Review and Revisions Task Force. He also serves as a member of the ERCOT Operator Certification Exam Working Group, the ERCOT Working Group of Trainers. He has served as a</p>

	speaker on numerous operations related topics for the ERCOT Operators Training Seminar for the past ten years.
Bill Ellard	No longer with Cal ISO – Consultant basis only. No contact information available.
<p>David L. Folk Staff Transmission Specialist</p> <p>FirstEnergy Corp. 76 South Main Street Akron, Ohio 44308</p> <p>(330) 384-4668 (330) 336-9853 Fx folkd@firstenergycorp.com</p>	<p>David L. Folk is a NERC Certified System Operator with Reliability credentials and has 38 years of industry experience. David has 30 years of Transmission Operations experience including transmission, sub-transmission, and distribution operating experience. He is a former member and vice-chair of the NERC Personnel Subcommittee; Transmission Outage Coordination Dispatcher; and acted as a Control Area Operations Shift Supervisor, in which capacity he was responsible for Real-time Balancing Authority Operations, Transmission Operations, application of NERC standards, and training of operations personnel. He also acted as Supervisor of the Ohio Edison Southern Region Regional Dispatching and as Manager of FirstEnergy Transmission Operations Support, where he held the responsibility for outage coordination and short-term operations planning.</p> <p>He is currently employed as a Consultant on Reliability in the FirstEnergy FERC Compliance Department. He is a member of the NERC Balancing Authority Reliability-based Controls Standard Drafting Team and the Certifying System Operator Standard Drafting Team.</p>
<p>Jeff Gooding Load and Balancing Scheduler</p> <p>Florida Power & Light Co. 4200 W. Flagler Street Miami, Florida 33134</p> <p>(305) 442-5804 (305) 442-5672 Fx jeff_gooding@fpl.com</p>	<p>Jeff Gooding is a NERC Certified Reliability Coordinator and a NERC Certified Transmission Operator. He has years of experience in the electrical utility industry and 10 years of experience in Nuclear/Power Generation Operations. He spent 14 years in System Operations, and 9 years at various operating positions, culminating in the position of Real Time Reliability Coordinator. He spent 5 years as the Manager of Training and Certification for a group of 70 NERC Certified Operators.</p> <p>Jeff is a member of several groups including the FRCC System Operator Subcommittee, the NERC Personnel Subcommittee (PS), the Continuing Education Review Panel (CERP), and the North American Transmission Forum (NATF- formally TOOF)- Training peer review team. He is certified in the systematic approach to training (Train the Trainer) held on 10/31/2006 by OES-NA, and also participated in several NERC "Readiness Reviews" of RC/BA/TOP's and the NATF peer review (Training team).</p>
Mike Gough	NVA – retired – No contact information available.
<p>Raymond C. Gross Senior Trainer/Coordinator, Customer Relations & Training Dept.</p> <p>PJM Interconnection, L.L.C. 955 Jefferson Avenue Valley Forge Corporate Center Norristown, Pennsylvania 19403-2497</p> <p>(610) 666-8890 (610) 666-4379 Fx grossrc@pjm.com</p>	<p>Raymond C. Gross spent 20 years at Allied Health, including 15 years in clinical service and 15 years in education. He has 25 years of experience in coordinating training for bulk power system operators on the PJM system. He holds a bachelor's degree in Liberal Arts from Niagara University in New York (1966), a master's degree in Math Education from Temple University in Philadelphia, PA (1970) and a Doctorate (EdD) in Higher Education from Nova University (1984). He is member of the NERC SOS (currently PS) and participated in the establishment of the NERC System Operator Certification program, and in the establishment of NERC Continuing Education Program. He acts as Chair of the PJM Dispatch Training Task Force and assisted in establishing the PJM System Operator Certification program and the PJM System Operator Training and Certification Requirements program.</p>

<p>Mark A. Heimbach Generation Dispatch Manager</p> <p>Pennsylvania Power & Light Company 2 North Ninth Street N-2B Allentown, Pennsylvania 18101</p> <p>(610) 774-4571 (610) 774-4360 Fx maheimbach@pplweb.com</p>	<p>Mark A. Heimbach has 38 years of experience in the electric utility industry with PPL Corp (or its predecessors), and spent the majority of this time working in real-time system operations. He is a Registered Professional Engineer in Pennsylvania. He is also a NERC Certified System Operator – Reliability and a PJM Certified System Operator – Generation. He is a member of the PJM Operating Committee and PJM System Operating Subcommittee, and is a former member of the PJM Dispatcher Training Task Force. He acted as a Relay protection and control technician for 8 years and as a Distribution System Operator - 69Kv and below for 8 years. He also acted as a Transmission System Operator (500Kv & 230Kv) and Generation Dispatcher (>10,000 MW fleet) for 8 years. Mark has also served as the Supervisor of Transmission System Operations and Generation Dispatch for 4 years and as the Generation Dispatch Manager for another 10 years.</p> <p>In sum, Mark holds over 30 years of System Operations experience including dispatching distribution and transmission systems (up to and including 500kv) and ultimately managing the integrated transmission and generation control center of PPL until deregulation required the split of the functions. Since then he has been managing PPL's centralized dispatch generation control center which controls over 10,000 MWs of generation throughout PJM, ISO-NE & NYPP. He has been on PJM's System Operations Subcommittee for over 14 years and on PJM's Operating Committee for over ten years. In the past he was responsible for training PPL's System Operators and served on PJM's Dispatcher Training Task Force. He supported PJM instituting system operator certification within their region. He serves on PPL's internal NERC compliance team as the compliance manager for PPL EnergyPlus and as a subject matter expert for certain GOP functions. He is a graduate of Penn State University with a degree in electrical engineering. He is a certified NERC RC (RC200609562), a certified PJM Generation System Operator (PG2003107), and a registered Professional Engineer in PA. He served on a NERC audit team in 2003 when PJM was preparing to take over RC functions for some of the entities in the former MAIN & ECAR regions. He is in the NERC Registered Ballot Body and has kept abreast of the significant changes over the last couple of years leading to the NERC Reliability Standards.</p>
<p>Lauri Jones</p> <p>Pacific Gas and Electric Company</p> <p>77 Beale Street P.O. Box 770000 Mail Code B15A San Francisco, California 94105</p> <p>(415) 973-0918 lj8@pge.com</p>	<p>Lauri Jones has been with Pacific Gas and Electric Company for 26 years, the past 14 of which have been in the Electric Operations. She joined the Electric Operations in 1992 as a Journeyman System Operator. In 1997 she transferred to their Transmission Operations Center and became a System Dispatcher. In 1999 she attained a NERC RC certification and became a Shift Supervisor over PG&E's Electric Transmission System. She is currently a Senior Operations Supervisor over the Training & Industry Standards team involved in designing and coordinating the development of their System Dispatcher and Transmission/ Distribution System Operator training programs. She is chairperson of the WECC Operations Training Subcommittee; past chairperson and member of the California Electric Training Advisory Committee (CETAC) that provides emergency training to the System Dispatchers/System Operators of California to meet NERC Standard PER-002. She is also a member of the NERC Personnel Subcommittee, as well as a member of the Continuing Education Review Program. She is a NERC drafting team member on PER-005 and PER-003 and a core member of the Forum Transmission Operator Training Practices Group. She graduated in 1984 with a B.S. in Education from Arizona State University.</p>
<p>Rob MacDonald</p> <p>Hydro One, Inc. 49 Sarjeant Street Barrie, Ontario L4N 4V9</p> <p>(705) 792-3095 rob.macdonald@hydroone. com</p>	<p>Rob MacDonald is an Electrical & Electronics Engineering Technologist with over 25 years experience at one of the largest Transmission & Distribution utilities in North America; Hydro One Networks Inc. He is currently the Manager of Hydro One's Work Methods & Training department and is responsible for managing corporate, trades, & technical training. Rob has experience in operation of Distribution, Transmission, and Hydro Generation systems in senior operating and management positions with over nine years of direct experience in training & development. Rob has associations with the Electricity Sector Council, the Canadian Electric Association, the Ministry of Training Colleges and Universities, NERC, and the Hydro One Colleges Consortium.</p>

<p>Tom McKenrick Midwest ISO, Inc. 1125 Energy Park Drive St. Paul, Minnesota 55108</p> <p>(651) 632-8458 tmckenrick@midwestiso.org</p>	<p>Mr. McKenrick served 12 ½ years as a Chief Electrician in U. S. Navy Nuclear Submarines. After duty in the Navy he was a Journeyman Electrician at Clinton Nuclear Power Station. He has a Bachelor of Science in Industrial Technology from Southern Illinois University. Prior to joining the Midwest ISO as a Senior Technical Instructor in January 2006, Mr. McKenrick was a Senior Safety Related Nuclear Valve Engineer with AREVA Nuclear Services. He is an INPO (Institute Of Nuclear Power Operations) certified Instructor and holds a current North American Electric Reliability Corporation Certificate.</p>
<p>Patricia E. Metro</p> <p>National Rural Electric Cooperative Association 4301 Wilson Blvd. Mail Code EP11-253 Arlington, Virginia 22203</p> <p>(703) 907-5817 (703) 907-5517 Fx patti.metro@nreca.coop</p>	<p>Patti Metro is the Manager of Transmission and Reliability Standards at the National Rural Electric Cooperative Association (NRECA). She is an Electrical Engineer with a Bachelor of Science degree in Electrical Engineering from Clemson University. Patti has 25 years of extensive utility experience in compliance, customer service, engineering, operations, project management and training. In addition, she is a Certified NERC Reliability Operator and Dale Carnegie Graduate.</p>
<p>Ed Seddon</p>	<p>N/A – retired – No contact information available.</p>
<p>Donald Urban ReliabilityFirst Corporation</p> <p>(330) 247-3075 (330) 456-5408 Fx don.urban@rfirst.org</p>	<p>Donald Urban as spent thirty-eight years in the power industry. He worked in power plant operations as a control room operator and shift supervisor for 12 years. He also worked 5 years as power plant training consultant, 9 years as a fossil simulator instructor, 9 years as system operator and spent 3 years in Compliance with ReliabilityFirst.</p>
<p>Fred Waites Team Leader – Training</p> <p>Southern Company APC-Corp Headquarters, ACC P.O. Box 2641 Birmingham, Alabama 35203 fdwaites@southernco.com</p>	<p>Fred Waites graduated with honors from Louisiana State University with a degree in Electrical Engineering-Power Option. He has over 35 years of industry experience ranging from EHV substation design, BES resource planning, wholesale power and transmission service contract development and administration, power system protection and control, and BES real time operations. He holds a NERC Operator Certification as RC (RC200609695). He currently holds a dual role as Transmission Control Center Supervisor – Alabama Power Company and Supervisor of Southern Company Operator Training-West.</p>
<p>Darrel Richardson Standards Development Coordinator</p> <p>North American Electric Reliability Corporation 116-390 Village Boulevard Princeton, New Jersey 08540-5721</p> <p>(609) 452-8060 (609) 452-9550 Fx darrel.richardson@nerc.net</p>	<p>Darrel Richardson joined the NERC staff as a Standards Development Coordinator. In this role he facilitates and provides guidance to drafting teams in the development of technically excellent and timely Reliability Standards for the reliable operation and planning of the bulk power system. Darrel began his career with NERC in November 2007.</p> <p>Darrel has extensive experience in the utility industry having spent over 37 years with Illinois Power Company. In his tenure at Illinois Power he held several different positions in the Engineering, Planning and Operations groups. Among the position he has held are Transmission Coordinator, Generation Coordinator, Manager Wholesale Marketing, Manager Wholesale Marketing and Trading, Director Generation Control and Manager Compliance.</p>