![NERC North American Electric Reliability Corporation logo]

System Personnel Training Standard Drafting Team Meeting
Web Conference

June 20, 2007 — 10 a.m.–2 p.m. Eastern Daylight Time

Agenda

Consortium conference server: 1(732)694-2061
Conference code: 1208200607

Web Ex Meeting Number: 719 851 868
Meeting password: training

1) **Administrative**

   a) Introduction of Participants

   b) Review Antitrust Guidelines (**Attachment 1**)

   c) Review Meeting Objectives:

      i) Reference List

      ii) Implementation Plan

      iii) Response to Comments

      iv) Comment Form

2) **Review Reference List (Attachment 2)**

3) **Revise Implementation Plan (Attachment 3)**

4) **Complete Response to Comments (Attachment 4)**

   a) Collect general comments on recent revisions

   b) Discuss Q2 (highlighted), Q3, Q4, Q8, Q15 (highlighted), Q18 (confirm accuracy based on Implementation Plan revisions), Q19 (highlighted)

5) **Develop Comment Form (Attachment 5)**

6) **Review Action Items**

7) **Schedule Next Meeting**

NERC Antitrust Compliance Guidelines

I. General

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. Prohibited Activities

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.

- Discussions of a participant's marketing strategies.

- Discussions regarding how customers and geographical areas are to be divided among competitors.

- Discussions concerning the exclusion of competitors from markets.

- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

III. Activities That Are Permitted

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and

adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation, Bylaws, and Rules of Procedure are followed in conducting NERC business.

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.

- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.

- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.

- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

PER-005- Reference Documents

Disclaimer:

~~The following documents are to be considered references as described in the NERC Reliability Standards Development Procedure for the NERC Standard PER_005.~~ A Reference Document, as defined by the Reliability Standards Development Procedure, is a document developed to support a given NERC Standard. The list of hyperlinks below identifies references for the NERC Standard PER-005. The references ~~se documents are provided to explain~~ are intended to assist with the application of a systematic approach to training. ~~or facilitate implementation of the System Operator Training Standard but do not contain mandatory requirements subject to compliance review. As such the information is to be considered ways to implement the PER_005 standard, but not the only ways.~~

~~**Six reference documents are provided to assist with the application of a systematic approach to training. The initial reference covers an explanation of the systematic approach to training. Additional references go into more detail about a phase of the systematic approach, or the use of a tool that facilitates training. For ease of navigating, each reference is listed with a link to the complete document. Each reference also contains links to other references.**~~

A Systematic Approach to Training References:

> (add link to document)

~~**Job Task Analysis (add link to document)**~~

Training Needs Assessment References:

> (add link to document)

~~**On-The-Job-Training (add link to document)**~~

Performance Criteria <mark>References:</mark>

<mark>(add link to document)</mark>

Implementation Plan — System Operator Training Standard

Background

The System Operator Training Standard is designed to provide all system operators who work for a Reliability Coordinator, Balancing Authority and Transmission Operator entity with training to provide the knowledge and skills needed to perform all assigned tasks to a specified level of proficiency. The training provided under this standard includes a training plan for incumbent system operators and those new to a position or reassigned to a position.

The drafting team is developing several reference documents to assist the responsible entities in complying with this standard. The reference documents include the following:

- A description of the Systematic Approach to Training (SAT) process including one specific SAT method called ADDIE.

- A High Level description of what a job task analysis is for a position, including reference document locations to identify how to create a job task analysis.

- A workbook that includes a list of tasks commonly assigned to system operating positions, for use in starting the job task analysis process

- A high level description of what Performance Criteria is for a position, including reference document locations to identify how to create Performance Criteria.

- A high level description of what a training needs assessment is for a position, including reference document locations to identify how to conduct a training needs assessment.

- An overview of the On-the-Job Training (OJT) delivery method and how to develop this type of training.

Effective Date

The proposed standard will become effective beginning the quarter following the FERC approval of the standard and the following timeline of implementation will apply. Compliance with the requirements is phased in as follows[1]:

0 Yr.		1.5 Yr.	2.5 Yr.	3 Yr.

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[1] Note that not all training needs to be implemented by the effective date if they are not applicable. If for example, there are no new System Operators, then there would not be a need to begin using the training designed for entry-level System Operators. However, the annual training plan for the incumbent operators must be provided by the effective date for Requirement 6.2.

[2] Note Requirement R9 in the Reliability Standard PER-005 is effective immediately upon the approval of the Reliability Standard and is exempt from the phased implementation plan

REQUIREMENTS	A 3-Year Phased Implementation Period		
Phase I - 1, 2, 3, 4	R1, R2, R3, R4 up to 18 Months		
Phase II – 5, 6, 7, 8, 10	R5, R6, R7, R8, R10 up to 30 Months R9: See Note[2]		
Phase III – 11, 12, 13	R11, R12, R13 up to 36 Months		

Impact on Existing Standards and Other Standards in Development

When this standard, PER-005, is fully implemented, the Drafting Team recommends retiring PER-002-0 –Operating Personnel Training. PER-002-0 requires the Balancing Authority and Transmission Operator to have a training program, but has no specific requirements for the Reliability Coordinator to have a training program for its operating personnel. The requirements in PER-002 are not written as specifically or as objectively as the requirements in the proposed standard PER-005. The drafting team recommends removal of this standard to eliminate duplication of subject matter.

The drafting team also recommends retiring PER-004-1 – Reliability Coordination –Staffing by moving requirement 1 of PER-004 to the existing PER-003 standard and including Requirements 2 though 5 in the PER-005 standard.

PER-004-1 has the following five requirements:

- ▪ Requirement 1 requires the Reliability Coordinator staffing to be 24/7 and must be put into PER-003 to quantify the staffing needed. This requirement will be retained in PER-004 until that change is complete.

- ▪ Requirement 2 requires the Reliability Coordinator's operating personnel to have five days (32 hours per add NERC reference) a year of emergency operations training and is included with the proposed standard and the drafting team recommends removal of this requirement from PER-004-1 to eliminate duplication of requirements.

- ▪ Requirement 3 requires the Reliability Coordinator's operating personnel to have a comprehensive understanding of the Reliability Coordinator Area and interactions with neighboring Reliability Coordinator Areas and is included with the proposed standard and the drafting team recommends removal of this requirement from PER-004-1 to eliminate duplication of requirements.

- ▪ Requirement 4 requires the Reliability Coordinator's operating personnel to have an extensive understanding of the Balancing Authorities, Transmission Operators, and Generation Operators within the Reliability Coordinator Area, including the operating staff, operating practices and procedures, restoration priorities and objectives, outage plans, equipment capabilities, and operational restrictions and is included with the proposed standard and the drafting team recommends removal of this requirement from PER-004-1 to eliminate duplication of requirements .

- Requirement 5 requires the Reliability Coordinator's operating personnel to pay particular attention on SOLs and IROLs and inter-tie facility limits and requires the Reliability Coordinator to ensure that protocols are in place to allow Reliability Coordinator operating personnel to have the best available information at all times.

- The current NERC standards: IRO-003, IRO-004, IRO-005, and IRO-006 require the Reliability Coordinator to operate within the SOLs and IROLs of the power system and to have monitoring capabilities for these areas. The Drafting Team determined that the language in this requirement of PER-004 is duplication with the content of other existing Standards. ~~The drafting team is including this Reliability Coordinator training topic in the new PER-005 standard to ensure that IROL and SOLs are covered in every Reliability Coordinator training plan (See Requirement 10.5).~~ The drafting team recommends removal of this requirement from PER-004-1 to eliminate duplication of requirements in IRO-003, IRO-004, IRO-005, and IRO-006. .

Applicability

This standard applies to all system operator positions of a Reliability Coordinator, Balancing Authority and Transmission Operator entity that have the authority and responsibility either directly or through communications with others, to perform independent actions that impact reliability by producing a response from the interconnected electrical system that is real-time and concurrent with the causative action. This includes contract System Operators or System Operators performing such tasks under delegation agreements.

Background

The System Personnel Training Standard Drafting Team (SPTSDT) thanks all those who submitted comments with the first posting of the System Operator Training Standard.

The initial draft of this standard was posted for a public comment period from September 27 through October 26, 2006. The SPTSDT asked industry participants to provide feedback on the standards through a special Comment Form. There were 58 sets of comments, including comments from 174 people representing 91 different entities from all NERC Regions and six of the nine Industry Segments as shown in the table on the following pages.

In this document, the SPTSDT's consideration of comments is provided in blue text immediately following each comment submitted for each question. A summary response to each question is highlighted in yellow following each question. The following conforming changes were made to the standard:

- Eliminated the individual requirements for each of the phases of the SAT process (R1, R4, R6, and R9) and replaced these with a revised R1 that necessitates using the SAT process to develop the required training.

- Consolidated R2 and R3 that addressed assessing training needs for entry-level or newly hired experienced System Operators and incumbent system operators into one requirement, revised R2, that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

- Eliminated the requirement for verification of qualifications for persons developing or delivering training (R5).

- Eliminated the requirement for providing details of training activities (R7)

- R8???modification to R4???

- Eliminated the requirement addressing the maintenance of the System Operator training program (R10).

The following web page includes the stakeholder comments in their original format; a clean and red-line version of each of the standards; and a revised Implementation Plan. The red-line version of the standard and the Implementation Plan show the conforming changes that were made to the standard and the Implementation Plan following the last posting for comment.

http://www.nerc.com/~filez/standards/System-Personnel-Training.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 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]

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

Commenter	Organization	Industry Segment								
"I" indicates a comment submitted by an individual "G" indicates a comment submitted by one of the groups listed at the end of the table		1	2	3	4	5	6	7	8	9
John Bussman	AECI	x				x	x			
James Sorrels	AEP	x								
Ron Green (G12)	AEP									
Marcel Martin (G16)	AESO		x							
Tim Hattaway	Alabama Electric Coop					x				
Anita Lee (G5)	Alberta		x							
Marion Lucas	Alcoa Power Generating, Inc	x								
William J. Smith	Allegheny Power	x								
Dave Acton (G7)	Alliant Energy	x								
Ken Goldsmith (G9)	ALT									
Michael Clime	Ameren	x		x		x	x			
Michael Scott	APS	x				x				
David Millam (G12)	Aquila									
Ron Maki (G12)	Aquila									
Bobbi Welch (G7)	ATC	x								
Jason Shaver	ATC	x								
John Keller (G17)	Atlantic City Electric	x								
Scott Kinney (G16)	AVA	x								
Edward J. Carmen	Baltimore Gas & Electric	x								
Gordon Rawlings	BCTC	x								
Rod Byrnell (G16)	BCTC	x								
Dave Rudolph (G9)	BEPC									
Brian Tuck (I) (G16)	BPA	x								
Jerry Ohmes (G12)	BPU									
Brent Kingsford (G5)	CAISO		x							
John Phipps (G16)	CAISO		x							
CJ Ingersoll	CECD			x						

Name	Organization								
Alan Gale (G4)	City of Tallahassee				x				
Greg Tillitson (G11)	CMRC								
Dale Wadding	Dairyland Power Cooperative				x				
Vic Davis (G17)	Delmarva Power & Light	x							
Carolyn Wilson (G1)	Duke Energy	x							
Jeff Baker (G1)	Duke Energy	x							
Jim Hall (G1)	Duke Energy	x							
Larry Hartig (G1)	Duke Energy	x							
Mark Thiemann (G1)	Duke Energy	x							
Nancy DeLeon (G1)	Duke Energy	x							
Rick Porter (G1)	Duke Energy	x							
Steve Jones (G1)	Duke Energy	x							
Tom Pruitt (G1)	Duke Energy	x							
Fred Meyer (G12)	EDE								
Will Franklin	Entergy						x		
Ed Davis	Entergy	x							
James Hinson	ERCOT		x						
Steve Meyers (G5)	ERCOT		x						
David Folk (G13)	FirstEnergy	x		x		x	x		
Jeff Boltz (G13)	FirstEnergy	x		x		x	x		
Jim Eckels (G13)	FirstEnergy	x		x		x	x		
Ed DeVarona (G4)	FP&L	x							
Eduardo DeVarona (G8)	FP&L	x		x		x			
Jeff Gooding (G8)	FP&L	x		x		x			
Eric Senkowicz (G4)	FRCC		x						
Linda Campbell (G4)	FRCC		x						
Mark Bennett	Gainesville Regional Utilities				x				
John Kerr	GRDA								
John Kerr (G12)	GRDA								
Dick Pursley (G9)	GRE								
David Kugel (G14) (G15)	Hydro One Networks	x							
Rob MacDonald (G14)	Hydro One Networks	x							
Roger Champagne (G15)	Hydro-Quebec	x							
Ron Falsetti (G5) (I) (G15)	IESO		x						
Brian Reich (G16)	IPC	x							
Roderick Conwell (G7)	IPL	x							
Bill Shemley (G15)	ISO-NE		x						

G1 – Duke Energy
G2 – Santee Cooper
G3 – SCE&G ERO Working Group
G4 - FRCC System Operator Subcommittee
G5 - ISO/RTO Council
G6 – TVA
G7 - Midwest ISO Stakeholders' Standards Collaboration Group
G8 – FP&L
G9 – MRO
G10 – PJM
G11 – WECC RC Comments Working Group
G12 – SPP Operator Training Working Group
G13 – FirstEnergy
G14 – Hydro One Networks
G15 – NPCC CP9 RSWG
G16 – WECC Operations Training Subcommittee
G17 – Pepco Holdings
G18 – Southern Co.
G19 – Salt River Project Transmission & Generation Operations

Index to Questions, Comments and Responses:

1. **Do you agree with the information that must be collected when doing a job task analysis (R1.1. through R1.7.)?**

Summary Consideration:

The majority of the stakeholders that provided comments did not did not support the performance of a job task analysis as a requirement that should be included in this standard. They also did not agree ~~that~~ with the requirement should ~~that prescribed~~prescribe the information that must be collected when conducting a job task analysis. In addition, several comment~~ee~~rs requested that the requirement be revised to include only an analysis of the reliability related task~~s~~, not all tasks.

The SPTSDT revised the requirement~~s~~ such that the methodology used to perform and the information collected during the analysis phase of systematic ~~approach to training is~~approach to training is ~~not prescribed in the revised Requirement 1~~. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training, not the details of the outcomes of each phase. ~~outcomes of the analysis, rather than prescribing the methodology for conducting the analysis. The requirement has also been revised to include reliability-related tasks only.~~

Commenter		Comment
Tim Hattaway; Alabama Electric Coop (5)	no	PER-002 already requires a coordinated training program to ensure reliable system operation.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and FERC Order 693. In FERC Order 693 "the Commission (FERC) directs that NERC submit a modification to PER-002-0 that: (1) identifies the expectations of the training for each job function; (2) develops training programs tailored to each job function with consideration of the individual training needs of the personnel; (3) expands the Applicability to include reliability coordinators, generator operators, and operations planning and operations support staff with a direct impact on the reliable operation of the Bulk-Power System; (4) uses the SAT methodology in its development of new training programs; and (5) includes the use of simulators by reliability coordinators, transmission operators and balancing authorities that have operational control over a significant portion of load and generation." ~~Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.~~

John Bussman:AECI (1,5,6)	no	The goal of this standard is to ensure that operators are trained to maintain the BES. If a company has a process in place that already performs this task why must there be a standard that mandates a direction as how one will determine if someone in trained. For example: The NERC PER-002 states that a company will have a process in place to have operators trained to maintain the bulk electric system (BES)

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

In FERC Order 693 "the Commission (FERC) directs that NERC submit a modification to PER-002-0 that: (1) identifies the expectations of the training for each job function; (2) develops training programs tailored to each job function with consideration of the individual training needs of the personnel; (3) expands the Applicability to include reliability coordinators, generator operators, and operations planning and operations support staff with a direct impact on the reliable operation of the Bulk-Power System; (4) uses the SAT methodology in its development of new training programs; and (5) includes the use of simulators by reliability coordinators, transmission operators and balancing authorities that have operational control over a significant portion of load and generation."

Richard Appel; Sunflower Electric Power Co (1,3,5)	no	I think Per-002 is adequate in insure reliable trained operators Also if NERC is going to impose a job task analysis on us, NERC should set the minimum standards so it is fair and equitable for everyone. I don't think most companies have enough staff to comply with this standard.

Commenter		Comment

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. ~~The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~ The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

| Marion Lucas; Alcoa Power Generating, Inc (1) | no | Each company, not NERC, has the right to decide what, if any, job task analysis should be performed when training its employees. Categorizing specific tasks into a listing for job task analysis documentation should never be considered a High risk factor. Only specific tasks that are considered critical to reliability should be considered in an analysis for compliance to a reliability standard. |

Response: The SPTSDT agrees with the comment that the methodology used to perform and the information collected during the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of a systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include ~~an analysis that considers~~ only reliability-related tasks by System Operator positions.

| Will Franklin; Entergy (6) | no | The R1 requirement specifies that the information that must be collected pertains to only reliability related tasks 'identified' by the JTA. Thus the methodology for the JTA should remain under the discretion of the entity. Regarding the list of information related to the reliability tasks identified by the JTA - different training philosophies may not need this much detail in order to adequately train operators to successfully perform the tasks. Employing differing JTA methods and 'required' information neither makes an operator and entity more or less competent and reliable. |

Response: The SPTSDT agrees with the comment that the methodology used to perform and the information collected during the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirements such that the methodology used to perform the analysis phase of a systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The drafting team has revised the requirement to reflect the minimum outcomes of the analysis rather than prescribing the methodology~~.

| SRP (1) | no | Some direction on assessing criticality is warranted here. In R1.4, how does one define the "Criticality of the task with respect to reliability"? What are the criteria? How can there be consistency among individual companies if there aren't any guidelines? It would seem a task is either critical or it is |

Commenter		Comment
		not. Who determines the shades of grey that R1.4 imbues in its present wording? In order to fulfill the purpose of this standard, ensuring that operators are competent, all tasks that are part of the job should be assessed and trained to as needed. Many of these tasks aren't critical to reliability when looked at individually yet they are required to perform the job. When it comes to sanctions, criticality should be a key consideration.
		Entities should be required to identify only the tasks that are critical to reliability. These tasks can then be documented and training provided based on an operators need to be trained. The listed R1.1 through R1.7 for each of what could be dozens of tasks that may or may not be critical to reliability isn't necessary and does not justify the resources required to meet this requirement. Our operators perform numerous tasks that are not critical to reliability and should not be subject to this requirement.

Response: The SPSDT agrees with your comment on criticality and has removed the references to criticality from the requirement.

The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirements to include an analysis that considers only reliability-related tasks by System Operator positions.

Commenter		Comment
WECC RCCWG (1,2)	no	Entities should be required to identify only the tasks that are critical to reliability. These tasks can then be documented and training provided based on an operators need to be trained. The listed R1.1 through R1.7 for each of what could be dozens of tasks that may or may not be critical to relaibility isn't necessary and does not justify the resources required to meet this requirement. Our operators perform numerous tasks that are not critical to reliability and should not be subject to this requirement.
		R1.1 states that the conditions under which the task is performed are to be specified. It is not clear what the intent of requirement 1.1 is. A full set of conditions for each task performed is not necessary for development of training. It seems that other 1.x requirements adequately frame conditional information required for training purposes and Requirement 1.1 should be eliminated.

Response: The SPTSDT agrees with your comment on criticality and conditions and have has removed the references to criticality and conditions from the requirement.

The SPTSDT revised the requirements such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.Conditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.

Commenter		Comment
John Kerr; GRDA	no	These need additional information for clarification. The process for the JTA should be more of a guide instead of a standard.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement

Commenter		Comment
identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirement to reflect the minimum outcomes of the analysis rather than prescribing the methodology.~~		
Dale Wadding; Dairyland Power Cooperative (5)	no	The requirements in R1.1 through R1.7 are good guidelines but are too complicated for some relatively simple tasks. R1. should stand alone with the detailed guidance on how to structure a JTA left to the reference documents which are being prepared by the drafting team.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirement to reflect the minimum outcomes of the analysis rather than prescribing the methodology.~~

Commenter		Comment
Jason Shaver; ATC (1)	no	ATC believe that Requirement R1.1 and R1.7 go too far in prescribing what has to be included in a job task analysis.
		ATC does support the requirement that a job task analysis be performed but does not agree that with the need to prescribe the sub-bullets.
		ATC recommends that the SDT delete Requirements R1.1 – R1.7.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirements such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirement to reflect the minimum outcomes of the analysis rather than prescribing the methodology of the analysis.~~

Commenter		Comment
William J. Smith; Allegheny Power (1)	no	Further information is needed to offer an informed opinion on Requirement 1 and the required information specified in R1.1 through R1.7. The term reliability-related needs clarification and specific examples of what fits and does not fit the definition of reliability related. Clarification and or an example of an acceptable job task analysis is also required to properly comment on this standard.

Response: The SPTSDT agrees with your comment on the need to clarify the reliability-related needs and have added a clarifying statement in the applicability section of the standard. In response to your request for examples of reliability-related tasks. NERC has provided a reference document, Generic System Operator Task List. (http://www.nerc.com/~filez/standards/System-Personnel-Training.html)

The SPTSDT revised the requirements such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirement to reflect the minimum outcomes of the analysis rather than prescribing the methodology.~~

Commenter		Comment
Santee Cooper (G2)	no	Does R1 require a JTA for all company-specific reliability-related tasks, or only for those tasks judged by a company to warrant a JTA? Does R1 require the JTA to be revised for all new or revised tasks or tools? Is the reference document defining how a JTA is conducted needed to understand the requirements and expectations of this

Commenter		Comment
		standard and the impact of the associated one year implementation plan for R1-3?

Response: The SPTSDT agrees with your comment on the need to clarify the reliability-related needs and have added a clarifying statement in the applicability section of the standard. In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List. (http://www.nerc.com/~filez/standards/System-Personnel-Training.html)

The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.The drafting team has revised the requirement to reflect the minimum outcomes of the analysis rather than prescribing the methodology.

Commenter		Comment
SPP OTWG (1,2)	no	The standards should require a JTA, but the information collected and specified in R1 through R7 should be separate and used as a guide (e.g., and appendix). This would allow each entity to come up with it's own. Actions as a result of a task can be difficult to measure and document. How many categories of criticality are there? Is this a standard or a recommendation? If this is a requirement, what is the minimum requirement for each? Is this a requirement for the industry or for each individual operator?

Response: The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.Requirements R1.1 thru R1.7 have been reduced to a smaller subset by the drafting team in response to comments and state the minimum required elements as the outcome of the analysis.

The SPSDT has provided a reference on the systematic approach to training that can provide further clarification and examples on how to measure and document actions[ljc1]. – list of available training development resources – add link.

The SPTSDT agrees with your comment on criticality and has removed the references to criticality from the requirement.

The SPTSDT agrees with your comment that the requirement is not for individual operators but is applicable to job positions and has modified the requirement accordingly.

Commenter		Comment
WECC OTS (1,2)	no	OTS agrees a job task analysis should be performed to identify the tasks assigned to each operating desk. OTS does not believe the "analysis" needs to be updated when there is a new or revised task or tool. We believe R1 should say the task list must be updated. The level of detail for the analysis should be sufficient to identify the task and guide what type of training may be appropriate. Too much detail does not make for a better analysis and this requirement places work on operating entities that is not beneficial. The list in R1.1 through R1.7 is more detailed than is warranted. OTS lists the R1.1 through R1.7 and offers comments on each item: R1.1 "The conditions under which the task is performed." OTS does not support identification of the conditions when a task is performed. Most tasks need to be performed under many conditions. If a task is a critical emergency task the condition is a fundamental part of identifying the task and does not need a separate reference. R1.2 "The actions to be taken in performing the task, including identification of

Commenter		Comment
		references and tools used in performing the task." OTS supports including this in the Standard.

R1.3 "Identification of whether the task is performed alone or as part of a team." OTS does not support including this in the Standard. Many tasks need to be performed either "alone or as part of a team" depending on normal operating or emergency conditions at the time. Whether a task is generally performed individually or as a team is a fundamental part of identifying the task and does need a separate reference in the standard.

R1.4 "The criticality of the task with respect to reliability." OTS does not support including this in the Standard. Singling out tasks as being "critical" to reliability implies other reliability related tasks are not critical to reliability. All tasks identified as being reliability related should be considered important or "critical." If a task is inherently critical it will be known as a fundamental part of identifying the task and does need a separate reference. Criticality can be a relative issue and cannot be measured accurately.

R1.5 "The frequency of performing the task." OTS supports including this in the Standard. It can be helpful in developing the annual training plan and considering the frequency of tasks in the refresher or continuing training program.

R1.6. "The knowledge, skill, and experience needed to perform the task." OTS supports including this in the Standard.

R1.7 "The criteria for successful performance of the task." OTS does not support including this in the Standard. Separately identifying the criteria for "successful performance" of each individual task is not necessary and provides limited benefits. OTS fully supports a learning assessment at the end of each learning activity to determine if the learning objectives were met for the activity. Successful "performance criteria" is usually executing the skills and knowledge necessary to do the task correctly and in the right timeframe resulting in the desired outcome, essentially doing the task without mistakes. Many topics in operator training do not support the concept that an operator can demonstrate "performance" of the task at the end of the learning activity. Many tasks cannot be performed until an operating condition on the system calls for the task to be performed, which may be days or weeks after the training took place. A "performance criteria" can be a general operating philosophy such as safe and error free operating of the system, but it will be a burden and does not provide and benefit to add performance criteria to "every task" performed. |

Response: The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must

Commenter		Comment

The SPSDT agrees with your comment on criticality and conditions and has removed the references to criticality from the requirement.

The SPTSDT has revised the requirement to focus on positions, as opposed to individual or team performance.

During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard that includes the desired performance.

Commenter		Comment
Gordon Rawlings; BCTC (1)	no	A job task analysis should be performed to identify the tasks assigned to each operating desk but the "analysis" does not need to be updated when there is a new or revised task or tool. Shouldn't this section say the task list must be updated when there is a change?
		R1.1 Reliability-related tasks can be performed under many different conditions. How would we identify all the conditions these tasks could be performed under and what purpose does this provide? We believe this should be removed and is not required in the Standard.
		R1.2 We support including "The actions to be taken in performing the task, including identification of references and tools used in performing the task." in the Standard.
		R1.3 "Identification of whether the task is performed alone or as part of a team." BCTC does not support including this in the Standard. Many tasks need to be performed either "alone or as part of a team". We believe this should be removed and is not required in the Standard.
		R1.4 "The criticality of the task with respect to reliability." BCTC does not support including this in the Standard. Seprating out tasks as being "critical" to reliability implies other tasks are less important. There is no benefit to separating "critical" tasks from others. We don't see how this could be measured properly and all tasks that are reliability related should be considered important.
		R1.5 "The frequency of performing the task." BCTC supports including this in the Standard. It can be helpful in developing the yearly training plan and including infrequency of tasks in the refresher or continuing training program.
		R1.6. "The knowledge, skill, and experience needed to perform the task." BCTC supports including this in the Standard.
		R1.7 "The criteria for successful performance of the task." BCTC does not support including this in the Standard. Separately identifying the criteria for "successful performance" of each individual task is not necessary. BCTC fully supports a learning assessment at the end of each learning activity to determine if the learning objectives were met for the activity. We believe this will be a burden in developing a job task analysis for System Operators and does not provide and benefit to add performance critiera to

Commenter		Comment
		"every task" performed.

Response: The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

~~With respect to the comment on the necessity for conditions, the SPTSDT believes conditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.~~

~~The~~training. The SPSDT agrees with your comment on criticality and has removed the references to criticality from the requirement.

The SPTSDT has revised the requirement to focus on positions, as opposed to individual or team performance.

During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard that includes the desired performance.

Commenter		Comment
Michael Scott; APS (1,5)	no	During Job Analysis a task list for a position is created, and that determination of whether these tasks are selected for training is also created, typically by a difficulty, importance, and frequency review. This is alluded to in R1.4 and R1.5. This task list should be auditable. During Task Analysis the selected tasks mentioned above are analyzed to identify the conditions, behaviors, and standards to which a task must be performed. The knowledge, skills, and abilities of the selected tasks must be identified. These points are mentioned in R1.1, R1.2, R1.6, and R1.7. The analysis of these selected tasks should be auditable. To measure an individual's mastery of a task, evaluation in a team setting is problematic, if not impossible. We therefore disagree with R1.3. To make the R1 section more usable, we respectfully suggest the following wording: R1. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct a System Operator job task analysis (JTA). The analysis must be updated when there is substantive change to the operator's job (e.g. new or revised task or tool). The JTA results shall include: R1.1 A task list containing company-specific reliability-related tasks for each System Operator position, including analysis data used to determine whether the task is selected for training (e.g. infrequent, critical, difficult, etc.) R1.2 Analysis of each task selected for training, including conditions, actions, and standards for performance, and the knowledge, skills, and abilities required by the trainee.

~~Response:~~**Response:** The STPSDT agrees with your statements that the task list should be auditable and agrees with the comment on Requirement 1.3. The SPTSDT has revised the requirement to focus

Commenter			Comment

on positions, as opposed to individual or team performance. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.

~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology, consistent with your suggestions.~~

CJ Ingersoll; CECD (3)	no	The phrase "company-specific reliability-related tasks" is too vague and subjective, which impacts the effect of R.1.1-R.1.7 negatively. In addition, R1.1 task information realted to "the conditions under which the task is performed" should reference some reasonable aggregation of conditions, such as normal operating conditions, etc.

~~Response:~~**Response:** NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific entity may perform. Therefore each entity must complete a company-specific analysis to determine the required training.

~~The STPSDT agrees with your comment that the references to "company-specific reliability related tasks" are vague and has removed these references from the requirement.~~

The SPTSDT revised the requirements such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~Conditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.~~

| Richard Krajewski; Public Service Co of NM (1) | no | R1.1 PNM does not support identification of the conditions when a task is performed, since most tasks need to be performed under many conditions.

R1.3 PNM does not support this granularity of identifying if a task is performed individually or alone. PNM does not see a benefit in a reference

R1.4 PNM does not support including this in the standard. The task will identify the inhererently criticality of the task and does not need a reference.

R1.7 PNM agrees a job task analysis should be performed to identify the tasks assigned to each operating desk, however PNM does not believe the "analysis" needs to be updated when there is a new or revised task or tool. Too much detail does not make for a better analysis and this requirement places work on operating entities that is not beneficial. |
|---|---|---|

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard that includes the desired performance.

The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~Conditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.~~

The SPTSDT has revised the requirement to focus on positions, as opposed to individual or team performance.

The SPSDT agrees with your comment on criticality (R1.4) and has removed the references to criticality

Commenter		Comment
from the requirement. ~~During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard that includes the desired performance. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology,~~		
Jim Sorrels; AEP (1)	no	AEP supports that the standard should require a Job Task Analysis, but the information, collected and specified in R1.1-R1.7, should be identified separately from the standard, as a "Guide", such as an attachment or appendix to the standard.
		R1.1 should specify the condition categories (e.g., Emergency, Normal, Contingency, etc.).
		R1.2. should not require actions to be taken in performing the task unless the action is another task or sub-task. Actions may require a matrix or flow chart based on an individual's understanding of basic concepts. This could be very challenging in some cases, especially where there are a number of different actions/responses that are practical, and correct, that would yield similar results. As a result, we have documented operating procedures and plans (e.g., EOP and Black Start plans). R1.2 should simply read: Identification of references and tools, including actions if appropriate, used in performing the task.
		R1.4 is vague as it needs to specify the different categories of criticality (e.g., Low, Med, High).
		R1.6 should have the word experience removed or replaced with a different word or phrase within the requirement. Is experience intended to mean operator/trainee assessment by the trainer rather than experience over a time period of doing the task? If an individual has the knowledge and skill to perform the task, experience over time may not be relevent, such as for new tasks involving new tools. Experience comes with performing the tasks. Experience in doing a task may not be practical or possible (except as a lab type demonstration exercise during a training activity) until the tool/task has been proven and utilized in real-time operation. R1.6 should read: The knowledge and skill needed to perform the task; or, The criteria for demonstration of the knowledge and skill to perform the task.
		R1.7 - The criteria for successful performance is difficult to measure/document for many tasks. R1.7 seems redundant to R1.6, which is duplicative if a demonstration of knowledge and skills has been specified.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard that includes the desired performance. The SPTSDT revised the requirements such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the ~~The drafting team has revised the requirements to reflect the outcomes of the~~		

Commenter		Comment

Commenter		Comment
Southern Co (1,3,5,6)	no	While we agree with a Job Task Analysis being performed (Job Description), PER-002 already provides sufficient direction to assure entities develop quality Training Programs and are staffed with "adequately trained personnel". Requirement 1.3 is too granular. For instance, certain tasks can be performed as part of a team at times or alone at times. Criticality of the task in 1.4 with respect to reliability cannot always be correctly assessed. For example, the consequences of not performing TTC calculations to ensure that TTC capability is accurate may or may not have a critical affect on the system. Requirement 1.5 is too specific-Some tasks are performed continuously while other tasks are asking the system operator to perform studies for emergency outages. Another example is the notification to affected parties about a time error correction taking place. The frequency of these tasks sometimes can not be predetermined and do not reoccur on a steady cycle. A final task that can't have a predetermined frequency is notifications of problems or expected problems in system conditions. These simply happen and you respond as quickly as possible. Recommend removing Requirements 1.3, 1.4, and 1.5.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

The SPTSDT has revised the requirement to focus on positions, as opposed to individual or team performance.

~~During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard that includes the desired performance. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.The SPTSDT agrees with your comment on R1.4, criticality, and has removed the references to criticality from the requirement.~~

~~The SPTSDT agrees with your comment on R1.5, frequency of performing the task, and has removed that requirement.~~

Commenter		Comment
Matthew Santos; SDE&G	no	The JTA should be based on each company's needs, the time, money and man hours to do a JTA is considerable. if you were to use a vender to do the JTA cost will increase. So after you have the JTA done, now you build the training program around it. This is time, money and man hours. Now deliver the training to the troops, Money, time and man hours. Do you have or can you get the personnel to deliver the training? Most companies do not or cannot, so

Commenter		Comment
		we go to the outside and have a vender do it for us. From what I hear most companies are in the same boat doing more with less and not able to find qualified folks to get all the training done that is now required by the standards. This standard as it stands now would be very hard to comply with, you say phase it in over 2 years, more time is needed, 4 to 5 years would be more realistic for the industry to accomplish this. I disagree with R1.1 clarify conditions?, the task could be performed under normal/emergency conditions. Are you asking for that much detail on each task? It should be performing the task successfully R1.5 every utility is different, the operator may perform the task once or 50 times a shift what does it matter as long as they do it correctly? R1.7 - What is the criteria for successful performance of a task? It should be what I set it at. anything missed will be addressed.

Response: The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

The SPTSDT reviewed the comment that the implementation timeline should be extended and has revised the implementation plan to reflect an implementation timeline of 2 to 3 years.

~~Conditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.~~

~~The SPTSDT agrees with your comment on Requirement 1.5 (frequency of performing the task) and has removed that requirement.~~

~~The SPTSDT agrees with your statement on Requirement R1.7.~~

Commenter		Comment
Roger McBeth; Northeast Utilities (1)	no	This requirement is overly prescriptive as to the development, content, and maintenance of a Job Task Analysis. This requirement will force every organization to out source, at a significant expense, the initial development of an overly prescriptive complex Job Task Analysis Database and to purchase a complex Learning Management System to manage the JTA data to support this requirement. Given the small training staffs of most training organizations, their time and energy would be better spent performing a less prescriptive informal job task analysis. When the Institute of Nuclear Power Operations (INPO) required commercial nuclear power plants to develop training programs using a Systematic Approach to Training, they not only provided a generic Job Analysis/Task List, they also provided a generic Job Task Analysis for all of the generic tasks that could be used by each of the training organizations. It appears that NERC will only provide a generic task list. A Job Task Analysis (JTA) is much more manpower intensive than a Job Analysis. If NERC will require a company specific task list with all of the requirements specified in requirements 1.1 through 1.7, then they should provide a generic task list and a generic JTA that satisfies requirement 1.1 thru 1.7.

Commenter		Comment

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of a systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List. (http://www.nerc.com/~filez/standards/System-Personnel-Training.html) A generic analysis will not address all the reliability related tasks that a System Operator at a specific ~~utility~~ entity may perform. Therefore each entity ~~you~~ must complete a company-specific analysis to determine the required training.

Ed Davis; Entergy Services (1)	no	We believe R1 should consist of requiring the responsible entity to conduct a System Operator job task analysis, update that JTA when there is a new or revised task or tool, and specify the criteria for being QUALIFIED TO PERFORM each task. We agree that the responsible entity should keep a list of company-specific reliability-related tasks assigned to each System Operator position.
		We believe the draft R1 is overly prescriptive and suggest the last phrase of R1 - and the following information for each of those tasks: - be deleted. We also suggest R1.1
		performed alone or as part of a team. If R1.6 is not deleted as part of the above suggestion, then R1.6 should
		through R1.6 be deleted.
		If R1.3 is not deleted as part of the above suggestion, then R1.3 should be deleted because it is not significant if a task is be modified to delete the term - experience - from the requirement. JTAs are performed to determine the skills and knowledge needed, not the experience needed, to perform a task.
		We also believe that R1.7 of the draft standard should require the specification of the - criteria for being QUALIFIED to perform each task. The requirement should not be to specify the criteria for - successful PERFORMANCE of the task.
		This draft standard should address the criteria for individuals to be QUALIFIED to perform a task, and should address the continuing training for personnel that are QUALIFIED. The standard should not require the employers to specify the CRITERIA for SUCCESSFUL PERFORMANCE.

Response: The SPTSDT revised the requirements such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirement to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

~~With respect to your comment on R1.3, the SPTSDT has revised the requirement to focus on positions, as opposed to individual or team performance.~~

Commenter		Comment

| Duke Energy (G1) (1) | no | We agree that these are things that should be collected when doing a task analysis, which is what your question asks. This is a good for a template for a training program task analysis. However, the question presumes that a JTA is needed to have an effective training program. A JTA dictates that each task that each job function performs be documented in detail. This is an enormous amount of work. Additionally, in a dynamic operational environment where decision making is constant and conditions are changing, tasks are not prescribed. The primary requirement should be to have a training program. JTAs are a good, but not the only, way to establish a baseline for an effective training program. This is too prescriptive, and may lead to entities developing abbreviated task lists solely to meet all the sub-requirements. |

Response: The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology. .

| Ron Gunderson; NPPD (1) Robert Coish; MEHB (1, 3, 5, 6) | no | We agree that these are things that are generally considered when doing a task analysis. We're not sure that they all must be done for each task, which is what your question asks. This is good for a template for a training program task analysis. If this is too prescriptive, an unitended side effect would be for entities to shorten their task list so they can meet all the sub-requirements. The primary requirement should be to have a training program. Also, there is no way that doing a task analysis differently puts the Interconnection at risk of cascading, which is what the High Risk assignment implies. As a side note, the industry still needs to resolve and clarify the risk definitions. The draft standard is an example of people confusing importance with risk. |

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

| MISO (1,6) | no | We agree that these are things that are generally considered when doing a task analysis. We're not sure that they all must be done for each task, which is what your question asks. This is good for a template for a training program task analysis. If this is too prescriptive, an |

Commenter		Comment
		unintended side effect would be for entities to shorten their task list so they can meet all the sub-requirements. The primary requirement should be to have a training program. Also, there is no way that doing a task analysis differently puts the Interconnection at risk of cascading, which is what the High Risk assignment implies. As a side note, the industry still needs to resolve and clarify the risk definitions. The draft standard is an example of people confusing importance with risk.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

Hydro One Networks (1)	no	As posted, creating a JTA for operating positions can be an onerous undertaking as the list could be quite extensive. From the compliance viewpoint, the task may become onerous, depending on the level of detail and documentation that will be required. For example, switching operations could be broken down into many sub-tasks such as, routine, planned, contingency, restoration, emergency, low voltage, high voltage, system, auxiliary, SPS, manual, directed, independent etc. To facilite the requirement, NERC could provide a list of tasks for System Operators that entities can use and modify as required to represent their own uniqueness.
		In addition, there are other ways to determine training needs besides the use of a JTA. For example,
		- Lessons learned from Operating Experience
		- Corporate/Divisional Mandated Training
		- Remedial Training requirements
		- Government Legislated
		- Safety Training
		- New or changed tools, processes, procedures, instructions
		- New or modified equipment
		- AdHoc training requirements
		- Response to feedback or requests for training

Response: In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List. (http://www.nerc.com/~filez/standards/System-Personnel-Training.html)

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the

Commenter		Comment
~~methodology. The depth of analysis is not included in the requirement.~~		
Kathleen Goodman; ISO-NE (2) ISO/RTO Council (2)	no	In response to the specific question posed: ISO New England (IRC) agrees that the information listed should be included in a Job Task Analysis (JTA). However, the format of the question focuses on the details of the requirement (i.e. what goes into a JTA) and presupposes the need for the requirement itself. We do NOT agree that a Job Task Analysis should be a NERC mandated requirement. The customized subjective nature of job tasks precludes a 'standardized' requirement. Any approach that requires the responsible entity to define the terms and conditions of a requirement becomes what FERC calls (and objects to) a 'fill-in-the-blank' standard.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Commenter		Comment
PJM (2)	no	In response to the specific question posed: The PJM agrees with the IRC that the information listed should be included in a Job Task Analysis. However, the format of the question focuses on the details of the requirement (i.e. what goes into a JTA) and presupposes the need for the requirement itself.
		In its present form, it appears that each subject entity would be free to select the JTA model of its choice. The standard needs to identify the criteria that would be used to assess the adequacy of the entity's JTA and other required elements in the Training Standard.
		PJM does NOT agree that a Job Task Analysis should be a NERC mandated requirement. The customized subjective nature of job tasks precludes a 'standardized' requirement. Any approach that requires the responsible entity to define the terms and conditions of a requirement becomes what FERC calls (and objects to) a 'fill-in-the-blank' standard.
		Requirement 1, states that the JTA must be updated whenever there is a new or revised task or tool. The measurement for R1 states that you need a current JTA. It is impossible to evaluate this requirement let alone have consistency across ALL System Operators in North America.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology~~

~~In response to your comment on updating the JTA whenever there is a new or revised task or tool, the SPTSDT has removed this portion of the requirement.~~

Commenter		Comment
NPCC CP9 (1, 2)	no	The tasks to be performed by a system operator should be defined by the standard drafting team (SDT). A training program should then be developed by the entity to assure that any and all operators are proficient in those tasks. The standard need not get into the specifics of the training program. NPCC participating members also believe that an operating entity should not be mandated to perform a formalized job task analysis to identify a list of tasks and the corresponding training program.

Response: NERC has provided a list of generic tasks for common operator positions to the industry. Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific utility entity may perform. Therefore, each entity must complete a company-specific analysis to determine the required training.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

Commenter		Comment
Alan Adamson; NYSRC (2)	no	The tasks to be performed by a system operator should be defined by the standard drafting team (SDT). A training program should then be developed by the entity to assure that any and all operators are proficient in those tasks. The standard need not get into the specifics of the training program.

Response: NERC has provided a list of generic tasks for common operator positions to the industry. Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific utility entity may perform. Therefore each entity must complete a company-specific analysis to determine the required training.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

Commenter		Comment
SCE&G ERO WG (1, 3, 5)	yes	Job task analysis are subjective to whomever is developing these tasks and subject to interpretation of the standard and reference document which is currently not available. This approach results in lack of continuity across the industry which should be a goal specifically in an effort to audit compliance. The Natural Gas Transmission Industry has struggled with a a similar standard referred to as the Operator Qualification Rule (49 CFR 192.801) on a larger scale and lessons on implementation can be learned from their experience. The problem of lack of conformity between operating companies showed up in compliance audits specifically in the area of what was a qualifying task and the name of that task. What this industry did after a few

Commenter		Comment
		years because of the confusion and inefficient program management is develop a list of minimum tasks that applicable parties should address and provide details related to that task as a minimum comparable to those requested in R1.1-R1.7. If one of these tasks did not apply to a applicable party, they simply addressed it in their plan and provided supporting information. Another benefit of conformity, it allows plans to be develop and adoption by applicable operating parties across multiple systems. Additionally, personnel transferring from one applicable party to an other can provide evidence of their past performance to it as it relates to the tasks and begin work which saves time/money and gets qualified personnel working.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology~~

NERC has provided a list of generic tasks for common operator positions to the industry, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html) . A generic analysis will not address all the reliability related tasks that a System Operator at a specific ~~utility~~ entity may perform. Therefore each entity must complete a company-specific analysis to determine the required training.

~~During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.~~

Commenter		Comment
Ron Falsetti; IESO (2)	Yes/no	We agree that the majority of the information listed in R1.1 through R1.7 need to be collected to describe tasks to be performed by the personnel to whom the training program is intended. However, we do not feel that a NERC standard should mandate an operating entity to perform a job task analysis to develop this list and the corresponding training program.
		An industry-wide standard should stipulate that these operating entities (RC, BA and TOP) each develop and deliver a training program that will bring their operators to the competency level required to perform those tasks that the entity is responsible for as specified in the Functional Model. We view the listed items in R1 to be part of the task and work environment description, which can be combined with those listed in R7 and included in the training program document. A way to capture this would be to put the key attributes that must be included in a training program in a template to facilitate compliance audit.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Commenter		Comment
Based on industry feedback, R7 has been removed ~~for~~from the revised standard.		
Mark Bennett; Gainesville Regional Utilities (5)	yes	Yes, But I believe this is going to end up being a major compliance issue in the future if this SAR goes through as written, What is wrong with PER002-0 dated
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Certification is outside the scope of this standard.		
MRO (1,2)	yes	In R1.1, the MRO recommends the addition of some examples for the definition of conditions i.e. emergency, normal, etc…; also in R1.4, add some examples of the levels of criticality.
Response: ~~Conditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.~~The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The SPTSDT has removed the references to criticality, R1.4, from the requirement.		
Jim Gunnell; SPP (2)	yes	In addition, I believe the JTA should include a list of industry-standard, reliability-related tasks in addition to the company-specific tasks. This would set a standard level of best practice across the industry.
Response: In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific ~~utility~~entity may perform. Therefore each entity must complete a company-specific analysis to determine the required training.		
Gerald LaRose; NYPA (1)	yes	An important question resulting from the language used in the Requirement is: What is meant by "company-specific reliability-related tasks"? One interpretation could be "only those reliability-related tasks that are specific to a given company's operation" (as opposed to generic operator tasks). A second interpretation could be "that subset of all of the tasks derived from the JTA that are designated as reliability-related". Throughout the draft Standard there are repeated references to "tasks identified" and "reliability-related tasks identified". A clearer understanding will substantially aid in determining how onerous this Standard will be.
Response: The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions. The SPTSDT has revised the requirement to include company-specific reliability-related tasks only and removed all references to "tasks-identified" and "reliability-related tasks identified" from this requirement. The SPTSDT has revised section 4.2 (under Applicability) to address the industry's concern with the applicability. The intent of this paragraph is to provide in what is meant by reliability-related tasks.		
FRCC SO Subcommittee (1,2,5)	Yes/no	The language as written does not indicate that reliability-related tasks should be associated with the reliability of the Bulk Electric System. As we will detail later, we feel it is important for these training standards to have appropriate flexibility to accommodate training requirements on an entity basis. For example, for an entity that primarily

Commenter		Comment
		operates a distribution system, it is much easier for them to define their auditable training program if the standard is clear on requirements applying to BES related tasks. LSE and DP operating tasks that do not affect the BES should not be subject to the auditability of those that do. ie. these tasks do not affect the reliability of the Bulk Electric System and as such should not be auditable by NERC. Recommendation: Change the language to reflect Bulk Electric System reliability-related tasks.

Response: The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

The SPTSDT agrees with your suggested change to the language to reflect Bulk Electric System reliability-related tasks and has changed the references.

Commenter		Comment
FPL (1,3,5)	Yes/no	Operating tasks that do not affect the reliability of the BES should not be subject to the same auditability as those that do. The language as written does not indicate that reliability-related tasks should be associated with the reliability of the Bulk Electric System. We feel it is important for these training standards to have appropriate flexibility to accommodate training requirements on an entity basis. Recommendation: Change the language to reflect Bulk Electric System reliability-related tasks.

Response: The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

The SPTSDT agrees with your suggested change to the language to reflect Bulk Electric System reliability-related tasks and has changed the references.

Commenter		Comment
Allan George; Sunflower (1)	yes	Limit standard to exactly what is required, no need to over extend bounds if intent

Response: Yes, the SPTSDT agrees that standard should reflect minimum acceptable level of performance.

Commenter		Comment
Dan Kay; South Mississippi EPA (4)	yes	Generally agree with the information that should be collected but, should not be required by NERC in a standard. If & how a job task analysis is done should be left up to the employer not NERC.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

Commenter		Comment
Brian Thumm; ITC (1)	yes	Job task analyses can be very detailed. There are also many different scenarios to be considered when developing JTAs. While the list of JTA elements in the standard is sufficient, there could be clearer guidance as to the level of detail that an entity is expected to include in their JTAs, and the extent to which all possible permutations are

Commenter		Comment
		documented.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Commenter		Comment
TVA (1)	yes	We do not agree with the use of the word "experience" in R1.3. It is very subjective and difficult to quantify effectively or consistently. We suggest clarification of the meaning or just strike it all together.

Response: The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The SPTSDT has updated the requirement to remove references to the term "experience", which is difficult to quantify and measure. Analysis will determine knowledge and skills required to perform the task.~~

Commenter		Comment
Michael Gammon; KCP&L (1)	yes	
Michael Clime; Ameren	yes	
James Hinson; ERCOT (2)	yes	
Pepco Holdings (1)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
FirstEnergy (1,3,5,6)	yes	
Allen Klassen; Westar (1)	yes	
Brian Tuck; BPA (1)	yes	

2. **Do you agree that the training needs analysis should identify the training needs of the entry-level or newly-hired experienced System Operator and the training needs of the incumbent System Operator?**

Commenter		Comment
Marion Lucas; Alcoa Power Generating, Inc (1)	no	No. It is not NERC's responsibility to dictate the training needs of new hires, as OUR company determines what is necessary for training issues to prepare the new hire for performing OUR specific job requirements. NERC should only be involved with the Certification and OUR company shall train the new hires to meet and/or exceed the certification requirements. The Certification test itself is the measure of competence to do the job and NERC need not set a requirement on new hire/entry-level training needs for individual companies on which to be monitored.
Response: The SPTSDT has reviewed your comments and have consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not an individuals.. Certification is outside the scope of this standard.		
Tim Hattaway; Alabama Electric Coop (5)	no	PER-002 already calls for a training program that addresses the initial and continuing training needs of personnel responsible for system operations.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
John Kerr; GRDA	no	Certification for new operators is already in Standard PER-002. After certification, exposure to training for each operator should be the same program.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Note that PER-002-0 does not include certification requirements for new operators.		
Will Franklin; Entergy (6)	no	Many entities may employ a 'pipeline' training program for a new operator whereby the trainee receives training whether or not they have previous knowledge, then the knowledge and skill abilities are assessed through testing and a qualification card process. Additionally, to attempt to individually assess the training needs of each incumbent operator would be burdensome to employ and document. Again, some entities may operate under the philosphy that once an individual achieves qualification, and they periodically pass testing to maintain qualification then no additional plan is needed. If they fail, only then is an individual remediation plan is

Commenter		Comment
		developed.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
Dale Wadding; Dairyland Power Cooperative (5)	no	A requirement to perform an annual training needs analysis for every incumbent system operator is an unnecessary administrative burden. Proposed language would mandate such an analysis whenever there was a substantive change in the system operators JTA.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators. The SPTSDT revised the standard to clarify that the annual assessment is based on position, not an individual.		
SRP (1)	no	Partially agree. The means proposed to assess the training needs of an incumbent operator would appear to require simulating each and every task identified in R1 and grading every operator on their performance of each every year. This would seem an extremely time intensive process to just identify what you then plan to train them on. Is that truly the intent of this requirement? Entry-level/newly hired operators should not be required to have a needs analysis. These operators can be assumed to need all of our training curriculum. An analysis should be done periodically for incumbent operators. R1 does state that JTA should be reliability-related but it does not say critical-to-reliability. the way it is stated allows for a reasonably short list.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
Brian Tuck; BPA (1)	no	BPA agrees with the basic requirement of performing a training needs analysis to determine training needs, as expressed in requirement R2 and R3. BPA disagrees with the annual requirement proposed in R3 for incumbent system operators. While BPA agrees that the training needs analysis should occur with some periodicity, evaluating every system operator against the entire task list "at least once every year" is excessive. A complete and thorough assessment should result in a foundation for more than one years worth of training. Prior to going through the complete reassessment again, sufficient time should be allowed for the system operator to complete training and develop skills and knowledge in the areas identified as lacking. BPA suggests a three year cycle rather than every year.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is position-related rather than individual specific. The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.		
John Bussman:AECI (1,5,6)	no	We believe that training needs to be provided for new hire and entry-level, however, not necessarily using R1.1 - R1.7

Commenter		Comment
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators. ~~The reference to~~ R1.1 – R1.7 has been removed from the ~~requirement~~R1.		
William J. Smith; Allegheny Power (1)	no	The training needs analysis should identify the training needs of the entry-level or newly-hired experienced system operator. Properly trained incumbent system operators should not require a training needs assessment on an annual basis. Particularly since other specific NERC standards identify required annual training and the new NERC Certification credential maintenance program requires continuing training hours in specific categories.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators. ~~An annual assessment on a position basis is necessary and reasonable.~~ NERC Certification is a separate program; training provided under this standard's requirements can serve to meet the continuing education requirement for certification.		
Pepco Holdings (1)	no	The requirement is appropriate for entry-level and newly-hired system operators and perhaps as a baseline for incumbent system operations as a starting point for the basis of this Standard. But once a training needs assessment has been completed and presumably any training needed to fill gaps has been remedied, yearly training needs assessments are not required. R3 seems to be suggesting that an annual performance assessment should be conducted to determine possible deficiencies in an incumbent system operator's performance based on a reliability task's criteria. Since performance problems can be caused by a variety of things and remedied by things other than training—it is not appropriate to call this a training needs assessment nor to require one for each incumbent on an annual basis. These performance weaknesses need to be assessed and if training is the appropriate intervention—it should be included in the training plan as identified in our comments to Q4 below.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators. The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not <u>an</u> individual~~s~~.		
Southern Co (1,3,5,6)	no	We agree that training needs analysis should be done but NERC should focus on assuring training takes place and not on the process. It is unnecessary to differentiate between an "entry-level" and a "newly hired experienced" System Operator. Besides the fact that it is unclear what these terms are intended to represent (one is a job family level term and the other one trying to reflect a degree of experience independent of level), the training considerations (and terms) should focus on initial and refreshing/reinforcing training. If this approach is taken then the experience level

Commenter		Comment
		or incumbency is irrelevant. For a new operator all training would be initial. For an experienced "incumbent" operator, some would be "refresher/reinforcing" and some might be "initial" for newly assigned tasks.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Commenter		Comment
Duke Energy (G1) (1)	no	Requirement 2 relies on the successful completion of R1's JTA requirement, which would be very difficult and ever changing. There should be one training program, with the goal to have skilled operators.

Response: ~~The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated.~~ The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised R1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Commenter		Comment
WECC RCCWG (1,2)	no	Partially agree. Entry-level/newly hired operators should not be required to have a needs analysis. These operators can be assumed to need all available training. An analysis should be done periodically for incumbent operators.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individual~~s~~.

Commenter		Comment
Jason Shaver; ATC (1)	no	ATC does not believe that a separate training program needs be created for entry-level, newly-hired, and incumbent system operators. It is our position that a single training program can be developed to serve as the umbrella. Under the training program umbrella, individuals' training needs can be matched to those course offerings most appropriate to their level of experience and area of need. Requiring the documentation of multiple training programs for the same tasks at varying levels does not enhance system reliability or lead to more educated system operators. Rather, it adds to the administrative burden placed on the trainers, thereby reducing the amount of time available to develop and deliver quality training.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individual~~s~~.

Commenter		Comment
Michael Scott; APS (1,5)	no	We agree that the new-hire must have an assessment of their training needs, leading to an individualized training plan. We strongly disagree with the recommendation to conduct an ANNUAL assessment of incumbent operator training

Commenter		Comment
		needs. The Systematic Approach to Training, if properly applied, will lead to a initial training program design that develops qualified personnel for the job position. An entity would doubtless have to conduct a one-time assessment of incumbent operators' training needs, against the newly designed program, filling any gaps with the needed training. Once the incumbents have received the initial training for the job position they have held, there is no further need for annual training needs assessments. New tasks, industry events, enhanced skills training, performance improvement, etc. would be provided, via the Systematic Approach to Training, as continuing education.
		For the sake of simplicity, we would suggest the following wording for R2 and R3:
		R2. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall assess the training needs of new System Operators, creating individualized training plans for them as needed. The plan will include the topics and the schedule for the training.
		R3. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct a one-time assessment of the training needs of incumbent System Operators, creating individualized training plans for them as needed. The plan will include the topics and the schedule for the training.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
Jim Sorrels; AEP (1)	no	Yes. However, the wording of requirements R2 and R3 should be changed to clarify that the intent is for the needs analysis to be performed for each System Operator job classification not for each individual System Operator.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
FRCC SO Subcommittee (1,2,5)	no	As written, the proposed standard requirement requires the development of individual training plans for each system operator that is part of the training program. For many entities that do not have extensive training programs and resources, this is particularly burdensome and unnecessary from a practical standpoint. From a reliability perspective, the "training needs analysis" should focus on the training needs of a company, to achieve reliable operation of its facilities. The program should then make sure that all relevant personnel are adequately "trained" within the bounds of the defined program (as defined within the JTA) which will ensure the most reliable operation of that entity's facilities and subsequently ensure the overall reliable operation of the Bulk System.

Commenter		Comment
		Individual training needs assessment may be a "next" step in the training evolution, but at this time we feel that any "training needs analysis" must be based on the needs of the entity as a whole (as defined within the JTA) and not the individual operators.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
FPL (1,3,5)	no	The proposed standard requires the development of individual training plans for each system operator within a company's training program. For many entities that do not have extensive training programs and resources, this is particularly burdensome and unnecessary from a practical standpoint. From a reliability perspective, the "training needs analysis" should focus on the training needs of a company, to achieve reliable operation of its facilities. The program should then make sure that all relevant personnel are adequately "trained" within the bounds of the defined program (as defined within the JTA) which will ensure the most reliable operation of that entity's facilities and subsequently ensure the overall reliable operation of the Bulk System.
		We feel that any "training needs analysis" must be based on the needs of the entity as a whole (as defined within the JTA) and not the individual operators. Further, this approach will ensure that all operators within a particular operating company receive equal training to maintain and develop operating skills and knowledge.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
Kathleen Goodman; ISO-NE (2)	no	ISO New England agrees that Training programs must address the needs of the individuals, regardless of the experience level. Further, we agree that Training Programs must span the entire spectrum from new hires to experienced individuals.
		R2 and R3 however, would mandate individual person by person formal assessments. And R3 would impose unprecedented annual 'needs assessments' of each incumbent operator.
		R2 and R3 go well beyond requiring Corporate Operator Training programs, and go into mandating the practices and procedures for Personalized Training programs. ISO New England does not agree that a one-size-fits-all Assessment requirement will meet the unique and varying needs of the responsible functional entities. As noted in

Commenter		Comment
		the response to Q1, the customized subjective nature of individual's needs precludes a 'standardized' requirement. Any approach that requires the responsible entity to define the terms and conditions of a requirement becomes what FERC calls (and objects to) a 'fill-in-the-blank' standard.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
ISO/RTO Council (2)	no	The IRC agrees that Training programs must address the needs of the individuals, regardless of the experience level. Further, the IRC agrees that Training Programs must span the entire spectrum from new hires to experienced individuals.
		R2 and R3 however, would mandate individual person by person formal assessments. And R3 would impose unprecedented annual 'needs assessments' of each incumbent operators.
		R2 and R3 go well beyond requiring Corporate Operator Training programs, and go into mandating the practices and procedures for Personalized Training programs. The IRC does not agree that a one-size-fits-all Assessment requirement will meet the unique and varying needs of the responsible functional entities. As noted in the response to Q1, the customized subjective nature of indiviual's needs precludes a 'standardized' requirement. Any approach that requires the responsible entity to define the terms and conditions of a requirement becomes what FERC calls (and objects to) a 'fill-in-the-blank' standard.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
PJM (2)	No	The IRC agrees that Training programs must address the needs of the individuals, regardless of the experience level. Further, the IRC agrees that Training Programs must span the entire spectrum from new hires to experienced individuals.
		R2 and R3 however, would mandate individual person by person formal assessments. And R3 would impose unprecedented annual 'needs assessments' of each incumbent operators.
		R2 and R3 go well beyond requiring Corporate Operator Training programs, and go into mandating the practices and procedures for Personalized Training programs. The IRC does not agree that a one-size-fits-all Assessment requirement will meet the unique and varying needs of the responsible functional entities. As noted in the response to Q1, the customized subjective nature of indiviual's needs precludes a 'standardized' requirement. Any approach that requires the responsible entity to define the terms and

Commenter		Comment
		conditions of a requirement becomes what FERC calls (and objects to) a 'fill-in-the-blank' standard.
		A training needs analysis should to be conducted for all new entry-level operator candidates, and newly hired experienced operator to determine their present level of accomplishment. However, to mandate that there be an annual Training Needs Assessment of all incumbent system operators is without basis and "over-the-top". If there was an identified deviation in performance, then a determination by entity management would need to be conducted to determine whether or not the performance deviation is a training issue or something else. Not all problems can be resolved by training.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

| Ed Davis; Entergy Services (1) | no | Overall we agree with R2 with the exception that the training needs should be to meet the - criteria for being QUALIFIED to perform each task - and not - the criteria for successful PERFORMANCE of the task. |

Response: The SPTSDT has reviewed your comments and have consolidated Requirements 2 and 3 into one requirement that is position-related rather than individual specific.

The SPTSDT has revised the requirement to '"mismatch between the desired and actual performance", consistent with the approved standard's SAR.

| CJ Ingersoll; CECD (3) | no | CECD provided a negative response because CECD does not feel that, unless applicable, resources should be dedicated to developing new-hire training programs. CECD does feel it is appropriate to assess the training needs of operators in general, however it is unclear what evidence an entity must produce to show an assessment was performed. Is the annual training plan evidence that an assessment was performed? As written currently, are entities to assume that entry-level assessments are to be revised as tasks are added versus the annual gap assessments for incumbents? |

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

An annual assessment on a position basis is necessary and reasonable.

The SPTSDT has revised the measures for the combined requirement such that evidence of the latest assessment for each position must be provided.

| Roger McBeth; Northeast Utilities (1) | no | This requirement would place a significant administrative burden on a very small training staff to perform a training needs analysis for each operator on over 300 tasks. For small training organizations, it should be sufficient to have hiring practices that require minimum entry-level education and experience and provide a training program based on the entry-level requirements of the position description that addresses all of the tasks for the position. For incumbent operators, it should be sufficient to provide an operator |

Commenter		Comment
		training program that provides continuing training that covers infrequently performed complex tasks that are important to system reliability. The continuing training program should also address training weaknesses/deficiencies that have been identified through management observations of operator performance. It would be an overwhelming task for a small training organization to perform individual training needs analysis for each incumbent operator on over 300 tasks. While we understand the benefit of performing an individual training needs analysis for each newly hired system operator and for the incumbent system operators, we do not feel that the value added by this activity would justify the additional administrative burden.
		We would be better served by concentrating on the following:
		- Develop well defined entry-level requirements
		- Develop and maintain an Initial Training Program which provides training on all tasks selected for training.
		- - Develop and maintain a continuing training program that addresses 1) generic deficiencies for all operators, 2) training on core critical tasks

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has considered your suggestions on areas of concentration and based on other stakeholder feedback, believes the suggestions would be considered by stakeholders to be are too prescriptive to be included in this standard.

Commenter		Comment
WECC OTS (1,2)	Yes/no	These should simply be referred to as a training assessment for "initial" training of a System Operator and a training assessment for "continuing" training. It is not necessary to say they are "entry-level or newly hired experienced". A proper gap analysis measuring each System Operator against all the tasks required to be performed will determine how much training is required. However, R3 requires a training needs assessment of each operator to identify performance gaps (we prefer competency gaps or a gap analysis) at least once "every year." This indicates every operator must be assessed against the entire task list at least once a year. OTS agrees this type of assessment of incumbent operators should occur with some periodicity but every year is unnecessary and will lead to unbeneficial concerns of the operators. OTS suggests a two or three year cycle rather than every year.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
Matthew Santos; SDE&G	Yes/no	We interview experienced outside Operators in Transmission and Generation to come into the Transmission (GCC) department. We do verbal/scenario type of questions and look at their resume, if they qualify in this regard, then we proceed with training them in all aspects of Transmission. It does not matter what they say they know, we cover it all (They have to learn our system & procedures) and then test them. This happens until they are qualified to assume a shift by themselves.
		I disagree with R2 and R3 this is too much and going to far. Assessments on individual's needs can be captured in their exam results thru out normal training (Refresher/Continual) as it is delivered. And follow up would be done if needed.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
Ron Falsetti; IESO (2)	Yes/no	The training need analysis should identify the training needs and the full spectrum of competency level that must be achieved / demonstrated to perform the tasks covering all levels of the system operator being trained. An entry-level operator may need to start at a lower training level than their more experienced counterparts. Experienced operators, including those who have been certified, may refresh their training at an intermediate level depending on the gaps identified. Analyzing the training needs for a specific group of operators and develop a program specifically for that level may render the program too specific and hence ineffective.
Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
Michael Gammon; KCP&L (1)	yes	It is important to determine the training requirements for training new Operators, however, on-going training for incumbent Operators should be in the form of training plans that accomplish those things that are important to the job specific needs of a company and to maintain NERC operator certifications.
		R3 is for unacceptable levels of performance for incumbent Operators to be assessed annually. For those reliability tasks that are done routinely, any performance problems should be addressed as they are known and not wait for an annual assessment. For those reliability tasks that are not done frequently (peak load operating conditions, emergency plans, etc.), those should be part of an annual training program. I would recommend the following language modifications to the proposed standard:
		R3. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall conduct a training needs assessment of incumbent System Operator to identify reliability-related training activities that are not routine for the tasks identified in Requirement 1, periodic training required for each non-routine reliability-related

Commenter		Comment
		task, and a training plan to support maintaining NERC operator certifications and to maintain Operator skill levels at least once every three years or as additional reliability tasks are added or modified. R4 seems to capture the essence of what I am referring to here, except for a training plan to support maintaining NERC operator certification.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
MISO (1,6) Ron Gunderson; NPPD (1)	yes	There would also be some recurring or refresher requirements. However, it may be that some organizations won't have new operators. The training program should have a goal of having skilled operators. There should be one training program; it doesn't have to be overly prescriptive.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
Jim Gunnell; SPP (2)	yes	In addition, I believe the analysis should include not only the mismatch between the criteria for successful performance and actual performance, but it should also include: a gap analysis between knowledge criteria and actual knowledge, and a gap analysis between knowledge (what you know) and action (what you're able to do) Therefore there are three gap analyses: 1. Performance Gaps 2. Knowledge Gaps 3. Knowledge/Action Gaps

Response: Based on stakeholder feedback, the SPTSDT believes the suggestion would be considered by the stakeholders to be is too prescriptive. The requirement has been revised to require the entity conduct an analysis to determine the mismatch between actual and desired performance.

Commenter		Comment
Gordon Rawlings; BCTC (1)	yes	These should simply be referred to as a training assessment for "initial" training of a System Operator and a training assessment for "continuing" training. It is not necessary to say they are "entry-level or newly hired experienced". A proper gap analysis measuring each System Operator against all the tasks required to be performed will determine how much training is required. However, R3 requires a training needs assessment of each operator to identify performance gaps (we prefer competency gaps or a gap analysis) at least once "every year." This indicates every operator must be assessed

Commenter		Comment
		against the entire task list at least once a year. BCTC believes this type of assessment of system operators should occur with some regularity but every year is unnecessary and will lead to work that will not produce any real results, different than a simple gap analysis would. BCTC suggests a simple gap anlysis every 2 to 3 years, or when job duties change significantly, will get the results needed.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
Hydro One Networks (1)	yes	Yes, the analysis should allow to compare a new worker's experience and knowledge (or lack of) versus that of an experienced system operator to facilitate identification of what they need to know and train accordingly.

Response: The SPTSDT agrees with your comment.Agree.

Commenter		Comment
Dan Kay; South Mississippi EPA (4)	yes	Generally agree that the needs of entry and experienced operators should be identified but, should not be required by NERC in a standard. Again, this should be the left to the employer, not required by NERC in a standard

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Commenter		Comment
Alan Adamson; NYSRC (2)	yes	Before taking an unsupervised shift a system operator needs to have demonstrated proficiency, regardless of past experience.

Response: The SPTSDT agrees with your comment.Agree.

Commenter		Comment
NPCC CP9 (1, 2)	yes	Before taking an unsupervised shift a system operator needs to have demonstrated proficiency, regardless of past experience. The training provided must meet the need of the individual regardless of the level of experience to ensure no gaps are in the training or any assumption of knowledge where there may be not be sufficient background.

Response: The SPTSDT agrees with your comment.Agree.

Commenter		Comment
Richard Krajewski; Public Service Co of NM (1)	yes	A proper gap analysis measuring each System Operator against all the tasks required to be performed will determine how much individual training is required. If done properly, this will identify the yearly training needs. PNM feels that annual assessment of every operator against the entire task force is of value, however suggest a 2 or 3 year interval for this assessment.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction

Commenter		Comment
		between entry-level, incumbent, and newly hired experienced System Operators.
		The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.
Santee Cooper (G2)	yes	Training requirements for newly-hired operators can be vastly different from one operator to another. For example, one newly-hired operator may have a background in substation work with knowledge and skills that are applicable to operators while another may have no experience at all. Does the requirement permit a company to determine the training needs of a new hire from a standard JTA and customize training requirements for the employee, or does this requirement imply that a JTA would have to be conducted and established for every new hire?

Response: The SPTSDT has reviewed your comments and have consolidated Requirements 2 and 3 into one requirement that is position-related rather than individual specific as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The requirement, as re-written, now necessitates an analysis for each job position, not for each new hire.

Commenter		Comment
SCE&G ERO WG (1, 3, 5)	yes	If a list of reliability related tasks and supporting information is provided, then this processes is manageable. Lack of providing a list of tasks and requirements related will add confusion and unneeded complexity to the process.

Response: NERC has provided a list of generic tasks for operator positions common to the industry, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic job analysis will not address all the reliability related tasks performed by each position at a specific organization . Therefore each entity is required to perform analysis to determine the scope of training.

Commenter		Comment
Allen Klassen; Westar (1)	yes	But not annually, suggest a 3 year cycle to fit with the overall training needs including Continuing Education for Operator Certification.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the requirement to clarify that the annual assessment is applicable to positions, not an individuals.

Commenter		Comment
Allan George; Sunflower (1)	yes	See 1

Response: The SPTSDT agrees that standard should reflect minimum acceptable level of performance.

Commenter		Comment
Mark Bennett; Gainesville Regional Utilities (5)	yes	Refer to 1

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Certification is outside the scope of this standard.

Commenter		Comment
Edward J. Carmen; Baltimore	yes	

Commenter		Comment
Gas & Electric (1)		
TVA (1)	yes	
Robert Coish; MEHB (1, 3, 5, 6)	yes	
MRO (1,2)	yes	
SPP OTWG (1,2)	yes	
Richard Appel; Sunflower Electric Power Co (1,3,5)	yes	
Michael Clime; Ameren	yes	
Brian Thumm; ITC (1)	yes	
James Hinson; ERCOT (2)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
Gerald LaRose; NYPA (1)	yes	
FirstEnergy (1,3,5,6)	yes	

3. **Do you agree with that each entity's training program should include training for entry-level System Operators, continuing training on new tasks or tools, refresher training to improve performance, and annual refresher training to practice tasks that have high criticality and are infrequently performed?**

<mark>Summary Consideration</mark>:

<mark>Most commenters agreed that a training program should include training for entry System Operator~~s, continuing training on new tasks or tools, refresher training to improve performance and annual training to practice tasks that have high criticality and are infrequently performed.~~ s, as captured in R4 of the first draft standard.</mark>

<mark>Group discussion – relationship between R2/3 and R4 from first draft. Responses to comments that are highlighted in yellow should be reviewed/revised if we want to explain the relationship.</mark>

Commenter		Comment
Richard Appel; Sunflower Electric Power Co (1,3,5)		This is already covered by PER-002
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
Southern Co (1,3,5,6)	no	Each entity should be left to determine the training needs of its personnel. See comments for question #2.
Response: The proposed standard does not prevent the inclusion or the exclusion of any training that meets the needs of an organization's training program. The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
CJ Ingersoll; CECD (3)	no	CECD provides a negative response because CECD does not feel that, unless applicable, resources should be dedicated to developing new-hire training programs. CECD does feel training programs should include continuing training on new tasks or tools and refresher training as described above.
Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
Michael Gammon; KCP&L (1)	no	<mark>R4.2 does not fit with this standard. Any lapses in performance should be dealt with immediately. Each company should have policies in place to allow a company to take any actions necessary to remedy operator performance issues.</mark>
Response: The SPTSDT has remove ~~R~~require~~ment 4~~ 4.2 from the revised standard.		
Dale Wadding; Dairyland Power Cooperative (5)	no	Propose changing the word annual to continuing to allow some flexibility in when refresher training is provided.
Response: The SPTSDT has ~~revised the requirement to remove refresher training and relies on the training needs analysis process to identify training requirements.~~removed R4 from the revised standard.		
Jim Sorrels; AEP (1)	no	<mark>No. AEP agrees with the concept, but not with the details of the requirement. It should be clear that each applicable entity needs to have an annual training plan for each job classification, not plans for each individual operator. In R4.4, the use of the term "continuing training" is not consistent with the use of the term "continuing education"</mark>

Commenter		Comment
		<mark>and "continuing training" in the NERC Continuing Education Program Administrative Manual. In the Manual, the term continuing education/training (per the Manual, the terms training and education are used interchangeably) is used to describe any training that extends the basic knowledge and skills required to do a job. Whereas, R4.4 uses the term in the context that continuing training is just one type of training used to extend the basic knowledge and skills to do a job. The use of terminology in the proposed standard should be consistent with existing NERC usage and definitions.</mark>
		<mark>R4, R4.2, R4.3: It is not practical to formally train on all reliability tasks on an annual basis. Training is provided for job classification as a result of a training needs analysis and prioritized to address the greatest needs first. Conducting continuing/refresher training to the whole group assures that all get refreshed. Whereas, refresher training on critical tasks already being performed correctly by the group in a job classification, would not need training. If an operator is not performing a task correctly, immediate training or intervention by a mentor or supervisor may be required instead of scheduling a formal structured training session, that is documented in the training program.</mark>

Response: The SPTSDT has revised the requirement to clarify that the annual training needs assessment is based on the incumbent operator position not the individual operator.

The inconsistent language in ~~Requirement~~ R4.4 has been removed.

Commenter		Comment
SRP (1)	no	<mark>If the training needs analysis is done properly, continuing training and refresher training needs will be identified and planned for. With this in mind is it truly necessary to keep the current wording of R4.2-R4.3?</mark>

Response: The SPTSDT has removed R4 from the revised standard. ~~The SPTSDT has revised the requirement to remove R4.2 and R4.3~~

Commenter		Comment
Mark Bennett; Gainesville Regional Utilities (5)	no	Not necessarily, Some Systems that perform these functions that are radial feeds and BA's don't need to practice blackstart every year unless a new employee is hired.

Response: This standard does not dictate specific training areas that should be in training programs, but does require that each operating organization perform a needs analysis to determine the training areas that should be included in their specific training program.

Commenter		Comment
WECC RCCWG (1,2)	no	<mark>Partially agree. The annual requirement for refresher training to practice tasks that have high criticality and are infrequently performed should be on an as-needed basis, based on the assessment in R3.</mark>

Response: The SPTSDT has removed R4 from the revised standard. ~~revised the standard to remove requirement 4.2 and 4.3. The SPTSDT agrees that the annual needs analysis will provide the information to identify training requirements for each position.~~

Commenter		Comment
Ed Davis; Entergy Services (1)	no	We agree with the question as presented here but we do not agree with the way the subject is being implemented in the draft standard.
		Please see our suggested changes contained our response to Question 19 in this document, including our concerns

Commenter		Comment
		regarding Sytsem Operators under contract or System Operators performing tasks identified in R1 under delegation agreement.
		Please also see our suggested changes to R6 contained in our response to Question 19 concerning the annual refresher training, practice of tasks that have high criticality and are infrequently performed.

Response: The SPTSDT has significantly revised the standard based on industry feedback.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. ~~The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~ ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Based on stakeholder feedback the standard has been reworded such that the successful performance is determined using the systematic approach to training by the entity.

Ron Falsetti; IESO (2)	Yes/no	Please see our response to Q2.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. ~~The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~ ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

FPL (1,3,5)	Yes/no	We agree but would prefer to have defined terms and intervals if necessary. We are uncomfortable with the term "incumbent" and "refresher". Right now, these terms are unbounded (without definitions) and could be subject to various interpretations and misrepresentations.
		Entry-level could be defined as the interval necessary or training components required for a NERC "certified" individual to become knowledgeable or functional at relevant tasks of the JTA for a particular entitiy's facility and operations (could be referred to as a qualification process). Once an operator becomes "qualified" then he/she enters the training program as a System Operator subject to a company's continuing training requirements.
		The term refresher training is also too vague and should either be bounded by EOPS requirements (as already exists), or referred to as continuing training or defined in the standards glossary.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Commenter		Comment
FRCC SO Subcommittee (1,2,5)	Yes/no	We agree with the concepts. We would prefer to have defined terms and intervals if necessary. We are uncomfortable with the term "incumbent" and "refresher". Right now, these terms are unbounded (without definitions) and could be subject to various interpretations and misrepresentations. Therefore any terms referenced in the requirements, if not defined within the requirements, should be bounded by the addition of a definition within the standards glossary.
		ie. Entry-level could be defined as the interval necessary or training components required for a NERC "certified" individual to become knowledgeable or functional at relevant tasks of the JTA for a particular entitiy's facility and operations (could be referred to as a qualification process). Once an operator becomes "qualified" then he/she enters the training program as a System Operator subject to a company's continuing training requirements.
		The term refresher training is also too vague and should either be bounded by EOPS requirements (as already exists), or referred to as continuing training or defined in the standards glossary.

Response: The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Commenter		Comment
Matthew Santos; SDE&G	Yes/no	Each entity should have a documented training program for refresher and continuing training. Each entity should have a training plan for outside operators as well as inside operators coming from Distribution to Transmission. But it all depends on how the entity is set up and what functions they perform. It should not be mandatory to have a entry-level or apprentice type of trainning program if the entity does not need it.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Commenter		Comment
ISO/RTO Council (2) Kathleen Goodman; ISO-NE (2)	Yes/no	The IRC supports a requirement that all responsible entities must have a System Operator Training Plan for maintaining current competencies, learning new competencies, and practicing needed competencies. The Plan should include training that covers all the experience levels for the specific respective entity (not for some undefined common need).
		All responsible entities must have a plan for entry-level system operator training, IF and ONLY IF entry-level training is required. However, there is no basis to fully-develop and have-ready-for-delivery an entry-level program if no such need exists.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Commenter		Comment
PJM (2)	Yes/no	PJM supports a requirement that all responsible entities must have a System Operator Training Plan for maintaining current competencies, learning new competencies, and

Commenter		Comment
		practicing needed competencies. The Plan should include training that covers all the experience levels for the specific respective entity (not for some undefined common need).
		All responsible entities must have the option of training entry-level system operators either by internal training resources or by contracting with a training entity to provide same.
		All responsible entities must have a plan for entry-level system operator training, IF and ONLY IF entry-level training is required. However, there is no basis to fully-develop and have-ready-for-delivery an entry-level program if no such need exists.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Michael Scott; APS (1,5)	yes	We agree with the idea, but again the verbiage used is needlessly wordy. Suggestion:
		R4. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have an annual training plan that includes:
		R4.1 Training for new System Operators, as identified in B.R2.
		R4.2 Training for incumbent System Operators, as identified in B.R3.
		R4.3 Continuing education for incumbent System Operators, that includes training:
		• to correct identified performance gaps
		• based on analysis decisions
		• on new or revised tasks

Response: Based on feedback from stakeholders, the majority of the stakeholders do not support this level of specificity included in the requirement for the training plan. Therefore, the SPTSDT has not included these suggestions in the revised requirement.

Jason Shaver; ATC (1)	yes	Although ATC agrees with the question as posed above, this is not consistent with the way the proposed standard is written.
		In addition, we believe that this standard should be written in a way that offers entities the flexibility to meet some or all of their training program requirements via external NERC certified course offerings under the recently approved NERC Continuing Education (CE) Program.

Response: The NERC CE program and the required hours to maintain System Operator certification is independent of the proposed standard PER-005. The proposed Standard PER-005 does not prevent the inclusion or the exclusion of any training that meets the needs of an organization's training program under the proposed standard PER-005 and meets the CEH hour requirements to maintain System Operator certification.

| Duke Energy (G1) (1) | yes | Requirement 3 is also contingent on the successful completion of R1's JTA requirement. This question does not seem to line up with the requirement. Why not replace the requirement with the rephrasing of this the question as |

Commenter		Comment
		a statement?

Response: The SPTSDT agrees that there may be a misalignment between the question and the requirement and will strive to align the requirements and the questions moving forward.

Commenter		Comment
Robert Coish; MEHB (1, 3, 5, 6)	yes	The scope of things mentioned should generally be considered as part of an overall plan. We agree with the question, but this doesn't seem to line up with the requirement.

Response: The SPTSDT agrees that there may be a misalignment between the question and the requirement and will strive to align the requirements and the questions moving forward..

Commenter		Comment
Michael Clime; Ameren	yes	Some of the tasks that have a high cricicality and that are infrequently perfromed such as System Restoration and Loss of Control Center Functionality are already addressed in the EOP Standard. If you are going to address those things in the Training Standard then take them out of the EOP one.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators[ljc2].

The SPTSDT have revised the standard to clarify that the annual training needs assessment is applicable to positions, not an individuals..

Commenter		Comment
SPP OTWG (1,2)	yes	This item requires clarification. Is the standard requiring each person within each company to provide a black start/restoration drill at least once per year? If this is the case, the possibility of meeting this standard is unlikely. Regional and subregional training must be available for entities to participate at the level required by R6.5.2

Response: The SPTSDT has modified the requirement for the Reliability Coordinator to conduct a restoration plan exercise annually in coordination with other entities.

Commenter		Comment
SCE&G ERO WG (1, 3, 5)	yes	If a list of reliability related tasks and supporting information is provided, then this processes is manageable. Lack of providing a list of tasks and requirements related will add confusion and unneeded complexity to the process.

Response: In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific utilityentity may perform. Therefore you must complete a company-specific analysis to determine the required training.

Commenter		Comment
Tim Hattaway; Alabama Electric Coop (5)	yes	I agree that training programs should be categorized into initial and continuing training needs; however PER-002 already requires this.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Commenter		Comment
Marion Lucas; Alcoa Power Generating, Inc (1)	yes	Continuing eneducation, refresher courses on current and infrequently performed jobs is important. We all experience in any job that we perform or with any degree/certification that we hold the need to stay current on latest trend and refresh the lesser used functions. As determined in job reviews for salary administration, to assess competency and further training needs our company already performs

Commenter		Comment
		these functions, NERC need not be involoved in employee development OR our company's administration functions.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Commenter		Comment
Santee Cooper (G2)	yes	However, we do not believe this requirement should be applicable to all new tasks or tools. For example, if tagging is modified such that the action on the part of the operator changes in a minor way, would this require a modification to the JTA and accompanying training plan?

Response: The SPTSDT has reviewed the comment and has removed the specific references to new tasks and tools from the requirement.

Commenter		Comment
Dan Kay; South Mississippi EPA (4)	yes	This should be the left to the employer, not required by NERC in a standard.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost[ljc3].

Commenter		Comment
Ron Gunderson; NPPD (1) MISO (1,6)	yes	The scope of things mentioned should generally be considered as part of an overall plan. We agree with the question, but this doesn't seem to line up with the requirement.

Response: The SPTSDT agrees that there may be a misalignment between the question and the requirement and will strive to align the requirements and the questions moving forward.

Commenter		Comment
John Bussman:AECI (1,5,6)	yes	However, not necessarily by R1.1-R1.7 criteria

Response: The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirement to reflect the outcomes of the analysis, rather than prescribing the methodology.

Commenter		Comment
John Kerr; GRDA	yes	Once certified, entry-level system operators should be encluded with experienced training in order for them to be exposed to all available materails.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

Commenter		Comment
NPCC CP9 (1, 2) Alan Adamson; NYSRC (2)	yes	Again, the SDT needs to identify the knowledge set for a system operator.

Response: NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html).

Commenter		Comment
Hydro One Networks (1)	yes	A training program must adapt to the level of experience and knowledge of staff. The training curricula should be tailored to include new operators and experienced ones with refreshers and more advanced levels for the latter.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3

Commenter		Comment
into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
Edward J. Carmen; Baltimore Gas & Electric (1)	yes	
William J. Smith; Allegheny Power (1)	yes	
TVA (1)	yes	
MRO (1,2)	yes	
WECC OTS (1,2)	yes	
Richard Krajewski; Public Service Co of NM (1)	yes	
Pepco Holdings (1)	yes	
Will Franklin; Entergy (6)	yes	
Roger McBeth; Northeast Utilities (1)	yes	
Allan George; Sunflower (1)	yes	
Jim Gunnell; SPP (2)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
Gerald LaRose; NYPA (1)	yes	
Gordon Rawlings; BCTC (1)	yes	
James Hinson; ERCOT (2)	yes	
FirstEnergy (1,3,5,6)	yes	
Allen Klassen; Westar (1)	yes	
Brian Thumm; ITC (1)	yes	
Brian Tuck; BPA (1)	yes	

4. **Do you think that each entity should have an annual plan that identifies the training it has planned for each System Operator?** (R4.)

Several comments did not agreed that the there should be a requirement to have an annual training plan that identifies the training each entity has planned for each System Operator. Based on industry feedback, the SPTSDT ~~revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator~~ **removed the requirement**.

Group considerations – similar answer to Question 3 – tie the revised R2 to the removal of the old R4 (as discussed during webex on 5/31/07). Responses to comments that are highlighted in yellow should be reviewed/revised if we want to explain the relationship.

Commenter		Comment
James Hinson; ERCOT (2)		Not sure
Response: The SPTSDT ~~has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.~~ removed R4.		
Will Franklin; Entergy (6) **R-4**	no	An annual plan for training should be developed & implemented. However, it is not needed on an individual basis.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
TVA (1) **R-4**	no	Does the term "each system operator" refer to individual operators or individual functions? (refer to reply #12)
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
FPL (1,3,5) **R-4**	no	The plan should address the training needs of the organization and how those needs will be met by providing the appropriate training to the required personnel (see answer to #2).
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
MISO (1,6) **R-4**	no	We agree with a need for a general annual review of the overall program. While each operator should have a few specific items on which they should include in their overall training goals, there does not have to be a separate plan for each individual.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
Duke Energy (G1) (1) **R-4**	no	The overall program should be reviewed annually. While each operator should have a few specific items on which they should include in their overall training goals, there does not have to be a separate plan for each individual.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
Santee Cooper (G2) **R-4**	no	An annual training plan for all operators within the company is fine. However, an annual training plan for each individual operator is not feasible. Once an operator becomes a system operator they should be at a certain level of competency such that individulized training is not needed. Too much individualized training may be an indication of a poor performing operator that is not compatible with the job.

Commenter		Comment
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
Ed Davis; Entergy Services (1) <u>R-4.1</u>	no	We believe responsible entities should have annual plans that identifies the training planned for each system operator. However, we think that it is not necessary to specify that in a reliability standard for the BES and should be deleted from this standard.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
SRP (1) <u>R-4</u>	no	We partially agree that this is a helpful planning tool and time permitting, everyone should have one. But does requiring this level of detail on a training plan increase reliability? Does not having it decrease reliability or an operator's skill level? With the dynamic nature of the industry, training plans with this much detail are only educated guesses at best. Should we penalize an entity for not having one? No. Do we penalize them if it doesn't turn out to be accurate? Certainly not. From an audit or compliance standpoint, who is to say that the training plan for employee X is satisfactory or not? What sort of consitent guidelines will be applied by an audit team? How does the drafting team view a "training plan". Does a training plan define targets and goals or is it more binding than that? There should be some leeway for contingencies and changing training needs.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
Pepco Holdings (1) <u>R-4</u>	no	There is some language difference between this question and the wording in R4 and M4 that should be clarified. This question implies a plan is required for each system operator but R4 and the associated M4 state that one plan is required by the entity. This one plan would identify the set of training activities planned for the entity's cadre of System Operators for any given year.— One plan rather than a plan for each is appropriate and if, as is stated in our comment on Q2 above, the annual performance assessment identifies training as a solution to a performance weakness, that training would be stated generically in this plan.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
Michael Clime; Ameren <u>R-4</u>	no	It is hard enough just trying to make sure that every Operator gets in his 32 hours of EOP, System Restoration Training and Backup Facility training, as well as making sure that they are getting the proper allotment of CE hours for re-newing their certificate. Now you are going to expect us to also create an individual training plan for each Operator to also track and correct their deficiencies on a yearly basis. Who is going to do all this work?
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
Ron Gunderson; NPPD (1) <u>R-4</u>	no	We agree with a need for a general annual review of the overall program. While each operator should have a few specific items on which they should include in their overall

Commenter		Comment
		training goals, there does not have to be a separate plan for each individual.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		
John Kerr; GRDA **R-4**	no	Each enity should have a training plan for the trainig process of the job. This would not leave out anyone (entry-level system operators) during the training process.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator. ~~-~~		
Jason Shaver; ATC (1) <u>R-4</u>	no	ATC believes that a training needs assessment should be completed on an annual basis and that, this needs assessment would be one of the items taken into consideration in creating the training program; however, to create a separate training plan for each individual operator is overly prescriptive. ATC asks for the following changes:
		Changes to Requirement 4
		Each RC, BA and TO shall have an annual training plan developed from the training needs assessment that identifies the topics, anticipated durations of the topic, and target schedules.
		In conjunction with this change, ATC requests the deletion of Requirements 2 and 3.
		ATC also recommends that the SDT delete Requirements 4.1 – 4.4. These requirements are overly prescriptive. They increase the administrative burden on a company and do not enhance system reliability or lead to more educated system operators.
		ATC recommends that NERC rewrite this standard in light of NERC's Continuing Education (CE) Program, as there will likely be a large amount of overlap in acquiring CE hours in order to maintain an individual's certification and in fulfilling organizational training requirements. Many companies will be looking to the CE Providers to help them meet their NERC CE hour certification requirements and their internal training program needs at the same time. The organizational training requirements are already tied to an individual's need to maintain certification via PER-003 which requires organizations to staff positions having the primary responsibility for real-time operation of the Bulk Electric System with certifed NERC personnel.
		If this standard fails to recognize the Continuing Education Program, which has already been approved by the NERC BOT, this standard, as written, will largely serve to increase administrative costs in the industry with minimal additional reliability benefits.
Response: The SPTSDT has revised the requirement such that each entity shall have an annual training plan for each position, not for each System Operator.		

The SPTSDT has reviewed your comments and consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals.

The SPTSDT have revised the standard to clarify that the annual assessment is based on position versus individual.

Commenter		Comment
The SPTSDT agrees with your comments about R4.1 and R4.2 and has removed ~~these requirements~~R4.		
The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.		
AEP	no	No. However, AEP does believe that each entity should have an annual plan for each job classification of system operator. AEP supports training identification at the job classification level, not at the individual level. The training needs assessment performed for R2 should apply for all entry-level employees for a job classification, similarly the assessment for R3 should apply to all non-entry-level job classifications.
		New/entry-level employees should not be performing reliability-related tasks (R4.1) on an unsupervised basis as they would not be qualified or NERC certified. The initial training plan should be a part of the annual training plan, but may best be referenced as an attachment or appendix to the annual training plan. It should be a stand alone program separate from that of the continuing education program for incumbent operators. Initial training program time frames for entry-level employees, with little to no experience, generally may extend longer than a year. Annual refresher training, as in R6.5, is the part of the training plan that should give focus on identifying and scheduling training activities for qualified/certified operators. The training plan could require new entry-level operators to receive the same annual refresher training given to qualified/certified operators, in addition to the training they receive in their initial training program, so as to reinforce the concepts of their initial training program.
		R 4.2 and R4.3 should be combined. If the refresher training of R4.3 is completed, it will address gap refresher training of R4.2, if it exists. The term performance gaps is a somewhat ambiguous term that is open to interpretation.
		R6 only needs to say "shall implement its System Operator training program as identified and specified in R4". It doesn't need the redundancy of R6.1 - R6.4
		R6.5 should then be moved to be included as R4.5 as a type of training identified and targeted by the annual training plan.
		R6.5.2 is too broad and vague. Need to clarify that ""involving all real-time operating positions" only means involving real-time positions within a control center, not field personnel. Also, the wording needs to be clear that not all operators have to participate in the joint exercise required in R6.5.2.
Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
The SPTSDT has revised the standard to clarify that the annual assessment is based on position, not individual assessments.		
The SPTSDT agrees with your comments about R4.1 and R4.2 and has removed ~~these~~		

Commenter		Comment

~~requirements~~R4.

The SPTSDT has review~~ed~~ your comments on R6, which captured the SAT implementation phase, and therefore removed R6 and created a global requirement for use of an SAT process to develop the required training, the revised R1 ~~and have revised the requirement (new R8) consistent with the comments.~~

The SPTSDT has ~~incorporate~~incorporated R6.5.1 into a revised stand-alone requirement, R3, ~~and~~ R6.5.2 has been removed.

Commenter		Comment
Alan Adamson; NYSRC (2) R-4	no	R4 should only be a restatement of this question (each entity should have a training program that assures the proficiency of the system operators) and not include the details as presently stated in R4 of the draft standard.

Response: The SPTDTF has reviewed your comments and revised the requirement by removing the prescriptive elements in R4.1, R4.2, R4.3, and R4.4, as well as changed the requirement to include a training plan by position, not System Operator.

Commenter		Comment
Allen Klassen; Westar (1) R-4	no	Annual plan is too frequent, not looking a the long term plan. Again, suggest a 3 year cycle to fit with the overall training needs including Continuing Education for Operator Certification.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SDT has revised the standard to clarify that the annual training plan is based on position, not individuals.

Commenter		Comment
Brian Thumm; ITC (1) **R-4**	no	The annual training plan should be a comprehensive plan identifying the overall needs of a training program, and not focused in the individual needs of any particular system operator.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT has revised the standard to clarify that the annual training plan is based on position versus individual.

Commenter		Comment
NPCC CP9 (1, 2)	no	NPCC participating members believe R4 should only be a restatement of this question (each entity should have a training program that assures the proficiency of the system operators) and not include the details as presently stated in R4 of the draft standard.

Response: The SPTDTF has reviewed your comments and revised the requirement by removing the prescriptive elements in Requirements 4.1, 4.2, 4.3, and 4.4, as well as changed the requirement such that the requirement includes a training plan by position, not for individual System Operators.

Commenter		Comment
SPP OTWG (1,2)	yes	A three-year plan would be better than an annual plan. A plan for a group of operators (e.g., entry-level system operators, newly-hired experienced operators, qualified/certified operators) would make better use of training. This would also offer refresher training to other operators on the same task.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction

Commenter		Comment
between entry-level, incumbent, and newly hired experienced System Operators. The SPTSDT has revised the standard to clarify that the annual training plan is based on position versus individual.		
Tim Hattaway; Alabama Electric Coop (5)	yes	The sub requirements of R4 are unecessary.
Response: The SPTSDT agrees with your comment.Agreed. The sub requirements of R4 have been eliminated.		
John Bussman:AECI (1,5,6)	yes	A company should have as a minimum a training program that provide contiuing training at least annually.
Response: The SPTSDT agrees with your comment.Agreed..		
Ron Falsetti; IESO (2)	yes	The will ensure that the training need is reviewed at least annually and a business plan with resource commitment provided.
Response: The SPTSDT agrees with your comment.		
Southern Co (1,3,5,6)	yes	Each entity should have training goals, schedules and an overall plan to address how operator training is to be accomplished
Response: The Drafting TeamSPTSDT agrees with your comment.		
Gordon Rawlings; BCTC (1)	yes	It is not clear what "anticipated duration of the topic" is meant to define in the annual training plan. It is expected that "anticipated duration" for a topic to be trained on would be different for entry-level SO's vs refresher training for incumbant SO's. BCTC believes that "anticipated duration" for training topics should not be a requirement as it is different in each context listed in subsections under R4. R4.2 suggests that training should solve all gaps in performance. BCTC would suggest that the standard should say that when an assessment determines training is the solution to a gap in performance it shall be done. Only after an assessment after a performance issue should the decision to train be required.
Response: The SPTSDT has reviewed your comment and revised the requirement to include the following phrase " anticipated duration of each learning activity" Requirements 4.1 through 4.4 have been removed.		
WECC OTS (1,2)	yes	It is not clear what "anticipated duration of the topic" is meant to define in the annual training plan. It is expected that "anticipated duration" for a topic to be trained on would be different for entry-level System Operator vs. refresher training for incumbant System Operators. OTS believes that "anticipated duration"for training topics should not be a requirement as it is different in each context listed in subsections under R4.
Response: The SPTSDT has reviewed your comment and revised the requirement to include the following phase: "anticipated duration of each learning activity".		
Richard Krajewski; Public Service Co of NM (1)	yes	PNM agrees that the annual plan should identify the training it has planned, however since system operators are at different knowledge levels the "anticipated duration" for training topics should not be a requirement as it is

Commenter		Comment
		different in each context listed in subsections under R4.

Response: The SPTSDT has reviewed your comment and revised the requirement to include the following phase: "anticipated duration of each learning activity".

Commenter		Comment
FRCC SO Subcommittee (1,2,5) **R-4**	Yes/no	The plan should address the training needs of the organization and how those needs will be met by providing the appropriate training to the required personnel (see answer to #2). It is also imperative that the requirement include a reference to allow organizations to deviate from the "anticipated" training plan. This is based on the continuously evolving nature of real-time operations along with identification of operational issues and training needs that are developed as a result of system disturbance analysis.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT agrees with the comment that an entity needs to be allowed to adjust the training plans to meet changing needs.

Commenter		Comment
Matthew Santos; SDE&G	yes	But due to manpower in operator ranks and in training sections it is very hard to comply with such a schedule. First you will spend a lot of time putting it together and then a lot of time changing it due to shift/personnel issues. A basic plan (Based on your system) will work for all system operators. Make a list of all the training that is needed for Refresher/Continual (Continual will change due to additions of new equipment or operating practices) training that needs to be done for all the operators trying to make it an indiviual plan is not worth the effort. If you get some tracking software you can run reports on who needs or has not done what training.

Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.

The SPTSDT agrees with the comment that an entity needs to be allowed to adjust the training plans to meet changing needs.

Commenter		Comment
Hydro One Networks (1)	**yes**	A plan and schedule should be developed and implemented. However, some flexibility should exist in the plan to allow for Ad-hoc or unplanned/unforseen training requirements.

Response: The SPTSDT agrees with the comment that an entity needs to be allowed to adjust the training plans to meet changing needs.

Commenter		Comment
CJ Ingersoll; CECD (3)	**yes**	However, there must be flexibility for variations from the plan, because of the nature of real time operating environements.

Response: The SPTSDT agrees with your comment.

Commenter		Comment
Dale Wadding; Dairyland Power Cooperative (5)	yes	R4.1 through R4.4 are unnecessary repitition and should be deleted.

Commenter		Comment
Response: The SPTSDT has revised the standard to clarify R4 and removed Requirement 4.1 through R4.4.		
SCE&G ERO WG (1, 3, 5)	**yes**	Annual training for System Operators is agreeable. To develop an individualizeed training program to any level of detail will be difficult to manage. However, if a standard list of applicable reliability related tasks are provided then individual training becomes mute. All operators will be required to demonstrate core competantancy. It would be left to management and the employee of the steps necessary to prepare an employee to qualify for applicable reliability related tasks.
Response: The SPTSDT has revised the standard to clarify that the annual training plan is based on position versus individual. In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html).		
Marion Lucas; Alcoa Power Generating, Inc (1)	yes	Yes, I agree that the training plans should be developed by each company to suit its needs but it may not be necessary to develop an individual plan for each operator as this determination would be a result of the employee review process.
Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
PJM (2) Kathleen Goodman; ISO-NE (2) ISO/RTO Council (2)	yes	PJM (ISO-NE) (IRC) supports ongoing Training Programs, but does not support a standard that requires a program "for each operator". Operator-specific programs may be an admirable objective, but they are not always practical.
Response The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators.		
WECC RCCWG (1,2)	no	Partially agree. An annual plan is a good idea but the operating environment is so dynamic that compliance measurements are impossible to determine. Who is to say that the training plan for employee X is satisfactory or not?
Response: The SPTSDT has reviewed your comments and has consolidated Requirements 2 and 3 into one requirement that is applicable to positions, not individuals, as well eliminated the distinction between entry-level, incumbent, and newly hired experienced System Operators. The SPTSDT have revised the standard to clarify that the annual assessment is based on positions, not an individual. versus individual.		
MRO (1,2)	yes	Some entities have procedure documents for activities such as switching where an individual will go out and perform the task under the direct supervision of a SO, does this standard apply to those individuals that are under the direction of the SO?
Response: The applicability section of the standard has been expanded to clarify the System Operators that are included in this standard.		
Dan Kay; South Mississippi EPA (4)	**yes**	This should be the left to the employer, not required by NERC in a standard.

Commenter		Comment
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
Michael Scott; APS (1,5)	yes	See item 3 above.
Response: The majority of the stakeholders do not support this level of specificity be required in the training plan. Therefore, the SPTSDT has not included these details in the requirement		
Edward J. Carmen; Baltimore Gas & Electric (1)	yes	
Robert Coish; MEHB (1, 3, 5, 6)	yes	
William J. Smith; Allegheny Power (1)	yes	
Mark Bennett; Gainesville Regional Utilities (5)	yes	
Richard Appel; Sunflower Electric Power Co (1,3,5)	yes	
Jim Gunnell; SPP (2)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
Gerald LaRose; NYPA (1)	yes	
Roger McBeth; Northeast Utilities (1)	yes	
Allan George; Sunflower (1)	yes	
FirstEnergy (1,3,5,6)	yes	
Brian Tuck; BPA (1)	yes	

5. **Do you agree that entities should verify that the personnel who develop or deliver training to System Operators are competent to do so? (R5.)**

Summary Consideration:

The majority of the commenters did not agree that a requirement should be included in the standard that necessitates entities to verify that the personnel who develop or deliver training to System Operators are competent. Based on industry feedback, the SPTSDT removed this requirement from the standard.

Commenter		Comment
MRO (1,2)		The region is being requested to define competency as it is seen from the perspective of the regional members, as this definition may vary from member to member. The competency of the trainer will be reflected in how each entities' system operators meet the myriad of requirements in this standard. If the entities' system operators training meets the requirements in this standard, the assumption can be made that the trainer is competent. This requirement is not needed. This is a business decision and should not be a requirement in this standard.
Response: Based on stakeholder comments, the SPTSDT has removed ~~this requirement~~R5.		
CJ Ingersoll; CECD (3)	no	CECD does not think this should be included in this standard. CECD does not think a company is not going to waste limited time and resources on training provided by unqualified individuals. This may be appropriate for CEU type training where credit is provided but it is not a requirement that should be applied here.
Response: Based on stakeholder comments, the SPTSDT has removed ~~this requirement~~R5.		
Jason Shaver; ATC (1)	no	ATC believes that Requirement 5 is both unnecessary and overly burdensome. We recommend that this requirement including its sub-requirements be deleted from the standard.
		Again, ATC believes that this standard should be written in a way that offers entities the flexibility to meet some or all of their training program requirements via external NERC certified course offerings under the recently approved NERC Continuing Education Program. Therefore, the burden for providing qualified instructors lies with the CE Provider and NERC in approving Individual Learning Activity (ILA) applications.
		As written, this standard creates duplicative requirements on the entity to track CE Provider credentials and substantiate the credentials of training provided by external instructors. This is the job of NERC under the CE Program. Failure for this standard to acknowledge an existing, NERC approved Continuing Education Program, merely because it has been developed by a separate arm of NERC is insufficient justification to place this additional administrative burden and cost upon the industry. The standard, as written, requires each industry member to create its own set of training records which in large part will be duplicative of the data that NERC has already captured under its CE program.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes there is nothing in this standard that conflicts		

Commenter		Comment
with the CE Program requirements.		
Ron Falsetti; IESO (2)	no	The desired results of this standard are operator competency and the responsible entities developing and providing the training. An industry-wide standard should not have to require each entity to provide competent instructors. Incompetent instructors will soon be replaced by competent ones as soon as the entities fail to secure a sufficient number of certified operators to meet other NERC requirements. Also, by having such a requirement, what follows would likely be "instructor certification" to assess instructors' competency. This is not necessary.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Brian Tuck; BPA (1)	no	PA agrees that personnel assigned to develop or deliver training should be competent to do so. However, BPA strongly disagrees that the verification of competency should be done by NERC, the RRO, or any other outside entity.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
SRP (1)	no	Who decides what is an acceptable level of knowledge of the subject matter? Who decides who is competent in developing training or in delivering training material? With no established parameters, enforcement of this requirement will be subjective and arbitrary. It is doubtful that an entity would spend the time and resources to train personnel with a trainer that wasn't competent. This situation would not be acceptable to most entities no matter what the NERC requirements are. If this remains a requirement, it will amount to no more than a rubber stamp of trainers qualifications since this is impossible for NERC or a Compliance Review team to determine with no criteria for "competent" or for "qualifications". What works for one company may not work for another. DOE Good Practices place this responsibility with line managment. It is probably OK to let each company establish who is responsible to make the determination. Ultimately the entity (BA, TO, RC) will be held to the requirement. Some quantification of the qualifications in R5 may help apply consistency among companies and provide objective criteria for compliance auditors.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Howard Rulf; WeEnergies (3,4,5)	no	A company can do this for its internal training. For training from a NERC CE provider, whether instructor led, on-line, or video, this verification should be done by NERC and entities should not need to re-verify what NERC should have already done.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Jim Sorrels; AEP (1)	no	No. Competency in this area would not be easily measured. Being competent reflects such attributes as being qualified, capable, fit, and adequate. AEP does not disagree that entities should use competent and qualified trainers. The issue is how to measure that. Additionally, we do not believe there exists a "qualification certificate" that would be pertinent to the trainers in our industry.

Commenter		Comment
		Therefore, R5 should be a guideline not a requirement.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Matthew Santos; SDE&G	no	Personnel who develop and/or deliver the training should be experianced in those areas of their expertise, if not then bring in the SME's (Subject matter Experts) to round it out. If the students are learning (Exam Results), knowledge transfer is being done.
		Other than that who ever is the trainer (Mostly those that were Operators) should have a record of being competent in their previous position(s). Attending Train the Trainer courses is desireable but not mandatory.
		What do you mean when you say Verify? Just looking at their work history or what? How would we measure this? By surveys?
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
WECC RCCWG (1,2)	no	The qualifications requirement is vague. How much operating knowledge is enough? When training is administered, audits of the training should be used to determine adequacy. The current requirement and measure would, in effect, amount to no more than a rubber stamp of trainers qualifications since this is impossible for NERC or a Compliance Review team to determine.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
ISO/RTO Council (2) Kathleen Goodman; ISO-NE (2)	no	A requirement that each entity verify trainer competency mandates each entity to assume an expertise that is outside the scope of those reliability entities.
		The IRC (ISO-NE) supports ongoing Training Programs that employ systematic approaches to training.—_Such programs, including NERC's current Continuing Education program, include a feedback component from the participants in the areas of content and instructor competency.—_Although participant verification of the competency of the instructors is an inherent component of such systematic approaches, a standard on verification is unnecessary.
		As note in the responses to Q1 and Q2, any standard that requires the responsible entity to define the terms and conditions of a requirement becomes what FERC calls (and objects to) a 'fill-in-the-blank' standard. To meet the FERC directive the standard must include a definition of competence and the measures used to assess that competence.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
PJM (2)	no	A requirement that each entity verify trainer competency mandates each entity to assume an expertise that is outside the scope of those reliability entities. For this requirement to remain in this standard, the industry would need to define what competence is and what measures are used to assess competency before requiring it of

Commenter		Comment
		anyone.
		Incompetent trainers will be identified by system operators failing the NERC certification tests. Since uncertified operators are prohibited from real-time operations the integrity of the system is not threatened - however, continuing such test failures would likely result in the trainers being replaced.
		As note in the responses to Q1 and Q2, any standard that requires the responsible entity to define the terms and conditions of a requirement becomes what FERC calls (and objects to) a 'fill-in-the-blank' standard. To meet the FERC directive the standard must include a definition of competence and the measures used to assess that competence.

Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~

Commenter		Comment
Gerald LaRose; NYPA (1)	no	The Trainer competencies cited in 5.1.2 (systematic approach) and 5.2.1 (delivery) are subjectively determined at best and may force many entities into the untenable, and undesirable, position of having to completely outsource their training needs.

Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~

Commenter		Comment
Richard Appel; Sunflower Electric Power Co (1,3,5)	no	Who is going to determine what is competent?NERC should already have a list of people and training companies whom are competent to deliver training.Several companies don't have resourses enough to have full time trainers on staff and must relay on outside entities for most training.

Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~

Commenter		Comment
Ed Davis; Entergy Services (1)	no	Again, we agree with the question as presented here but we do not agree with the way the implied subject is being implemented in the draft standard.
		Our concern here may be expectations, or terminology or semantics. The draft standard states the responsible entities shall VERIFY that persons developing or delivering training have the following qualifications:. VERIFY is a very nebulous term. Are audit teams going to accept a responsible entity's verification procedure and results? Are there industry-wide certification organizations that might be included in this standard whose stamp of approval would be acceptable to auditors so that responsible entities will only have to see that stamp of approval to know they are meeting this requirement? Is the responsible entity expected to give a test to the employees of a potential vendor to - verify - the employee of the potential vendor is qualified?
		Entergy employees who are subject matter experts in developing training programs using the systematic approach provide training to other Entergy employees. Is Entergy (or other reponsible entities) expected to have their subject matter experts certified to satisfy the "competency" requirement R5.1.2? CERTIFIED by whom?

Commenter		Comment
		Who establishes the VERIFICATION criteria - the responsible entities or the NERC auditors?
		Entergy employees who are subject matter experts also provide training for other Entergy employees. Is Entergy (or other reponsible entities) expected to have their subject matter experts certified to satisfy the "competency" requirement in R5.2.1? CERTIFIED by whom? Who establishes the VERIFICATION criteria - the responsible entities or the NERC auditors?
		We suggest this requirement be changed to specify that the responsible entities establish the verification criteria, as follows -
		Each Reliability Coordinator, Balancing Authority and Transmission Operator shall
		verify - to the satisfaction of that Reliability Coordinator, Balancing Authority or Transmission Provider - that persons developing or delivering training have the following qualifications:.
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
Duke Energy (G1) (1)	no	While a trainer needs to understand the material presented, this requirement implies a second layer of administration to keep track of the qualifications of the trainer. This requirement needs to line up with the requirements of the CEH program. How would you determine or measure competency in development and delivery of training? Who would be your trainers?
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
Ron Gunderson; NPPD (1)	Yes/no	While a trainer needs to understand the material presented, this requirement implies a second layer of administration to keep track of the qualifications of the trainer. This requirement needs to line up with the requirements of the CEH program. This also is rated as a high risk requirement, which is inconsistent with the definition.
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
NPCC CP9 (1, 2)	Yes/no	NPCC participating members believe that although it is important for the trainer to have basic understanding and competency of the subject matter, it is not a measurable metric for compliance. Many believe that incompetent trainers will result in system operators failing the "test" and that they will ultimatly be identified for more simplistic performance based processes than need to be stated in this standard.
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
Santee Cooper (G2)	yes	Will the company be permitted to define competency and the appropriate level of operating knowledge referenced in R5, or will the criteria for these be established by an external entity? If the critieria is established by an external entity, would an SME be permitted to provide training under the supervision of an individual "qualified"

Commenter		Comment
		by the criteria? If the criteria is established by an external entity, should it be included in the standard?

Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.

Commenter		Comment
FRCC SO Subcommittee (1,2,5)	yes	Not a "High" risk factor . Language should provide for the use of subject matter experts (SMEs) in the development and delivery of training with the direction and assistance from an individual that has competency using a systematic approach to training.

Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.

Commenter		Comment
SCE&G ERO WG (1, 3, 5)	yes	It is impractical at times for the trainer to be the subject matter expert or knowledge on the subject matter, but may have individual(s) present to address questions or concerns which should be allowed. It allows the best of both worlds a good trainer and knowledgeable parties.

Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.

Commenter		Comment
Robert Coish; MEHB (1, 3, 5, 6) MISO (1,6)	yes	While a trainer needs to understand the material presented, this requirement implies a second layer of administration to keep track of the qualifications of the trainer. This requirement needs to line up with the requirements of the CEH program. This also is rated as a high risk requirement, which is inconsistent with the definition.

Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.

Commenter		Comment
William J. Smith; Allegheny Power (1)	yes	Certainly anyone who develops or delivers training to system operators must be competent to do so. However, the term operating knowledge needs to be further clarified. If a person lacks actual operating experience for a particular task, would they not be considered competent to develop or deliver training to system operators? In R5.1.2 and R5.2.1, what criteria will be used to establish competency? If an individual has actual operating experience of a particular task, but has not been formally trained in delivering training, will they be considered competent?

Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.

Commenter		Comment
Marion Lucas; Alcoa Power Generating, Inc (1)	yes	Again, this is an administrative function that each company should oversee, to assure it will be able to operate in a reliable manner, consistent with the NERC Standards that apply to RELIABILITY, and NOT what NERC decides is the criteria for measurement of a trainer's competency.

Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.

Commenter		Comment
Will Franklin; Entergy (6)	yes	Of course the training developers and presenters should be competent. However, how would one verify the competence?— What qualifications would be acceptable (M5)? This is subjective. R5 - R5.2.1 adds ambiguities

Commenter		Comment
		into the standard.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Tim Hattaway; Alabama Electric Coop (5)	**yes**	Determining the compentency of a personnel delivering training appears to be very subjective.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
John Kerr; GRDA	**yes**	However, who determines the qualifications for this. The word competent leaves room for several loop holes.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Brian Thumm; ITC (1)	**yes**	Competency of a trainer is subjective. Guidance should be provided on how to assess and verify the competency of both developing and delivering operator training. Competency should be more than having attended a training class (e.g., Train-the-Trainer). Competency can be measured using various metrics to assess the actual effectiveness of the trainer of the training program as a whole. NERC should consider definitive standards for assessing and verifying competency of training personnel if such competency is to be included as such a key element of this particular standard.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Hydro One Networks (1)	yes	Clarification must be provided on what is meant by "verification." Attendance to a course on training facilitation doesn't guarantee competency in delivery. Sometimes it is difficult to expect a subject matter expert (SME) to be also a good instructor. In these cases, assistance in facilitation may be required. As for "competency in development using a systematic approach"…some SMEs may not be competent in this development. Therefore, assistance and staging the development may be required to ensure an adaquate end product.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Jim Gunnell; SPP (2)	yes	I would add to the categories of competency: competency in assessment methods to ensure valid and reliable assessment tools which measure both knowledge and performance.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Allan George; Sunflower (1)	yes	Can competent be defined as NERC Certified?
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Southern Co (1,3,5,6)	**yes**	Recommend that NERC leave the levels of competency to the individual Utility to decide what is an acceptable level. Not all electrical systems are the same.
Response: Based on stakeholder comments, the SPTSDT has removed R5.~~this requirement.~~		
Michael Scott; APS (1,5)	Yes	The answer to the question above is Yes. But we disagree with what the standard says. According to the

Commenter		Comment
		proposed standard, if you develop training you must know the material and know the training process, but if you implement training (aka: teach) you must only know the training process. We disagree. We suggest the following: R5. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall verify that persons developing or delivering training have the following qualifications: R5.1 Operating knowledge in the subject matter covered by the training activity R5.2 Competency in developing training using a systematic approach
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
WECC OTS (1,2)	<u>Yes</u>	The key phrase in this question is "entitites" verify the competence of those that develop and deliver training. OTS does not support outside entities such as NERC or the Regional Reliability Organizations determining if personnel are competent.
Response: Based on stakeholder comments, the SPTSDT has removed this requirement.		
Michael Clime; Ameren	<u>Yes</u>	Who are the entities mentioned that are going to certify that each person developing and doing the training is capable? Is there going to be a certification program to do this?
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
Richard Krajewski; Public Service Co of NM (1)	<u>Yes</u>	If by "entities" the standard refer to the electric utility and not the NERC Region or NERC.
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
FPL (1,3,5)	Yes	Not a "High" risk factor . Language should provide for the use of subject matter experts (SMEs) in the development and delivery of training with the direction and assistance from an individual that has competency using a systematic approach to training.
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
Gordon Rawlings; BCTC (1)	<u>Yes</u>	The key phrase in this question is "entitites" verify the competence of those that develop and deliver training. BCTC believes the wording in the standard means that our entity will determine competency to train our system operators. BCTC does not support outside entities such as NERC or the Regional Reliability Organizations determining if training personnel are competent.
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		
Dan Kay; South Mississippi EPA (4)	**<u>Yes</u>**	This should be the left to the employer, not required by NERC in a standard.
Response: Based on stakeholder comments, the SPTSDT has removed R5.this requirement.		

Commenter		Comment
Dale Wadding; Dairyland Power Cooperative (5)	Yes	
Edward J. Carmen; Baltimore Gas & Electric (1)	Yes	
TVA (1)	yes	
Michael Gammon; KCP&L (1)	yes	
SPP OTWG (1,2)	yes	
Mark Bennett; Gainesville Regional Utilities (5)	yes	
Pepco Holdings (1)	yes	
John Bussman: AECI (1,5,6)	yes	
Roger McBeth; Northeast Utilities (1)	yes	
James Hinson; ERCOT (2)	yes	
FirstEnergy (1,3,5,6)	yes	
Alan Adamson; NYSRC (2)	yes	
Allen Klassen; Westar (1)	yes	

6. Do you agree with the list of training activity components provided in R7? If not, please explain in the comment area.

Summary Consideration:

The majority of the commenters did not agree with the list of training activity components presented in R~~equirement~~ 7. Based on commenter feedback, the SPTSDT removed this requirement from the standard.

Several commenters expressed concern with the overlap between the standard's requirements and the NERC CEH program. The SPTSDT explained that the CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes ~~there is nothing in~~ this standard's requirements do not ~~that~~ ~~c~~conflict~~s~~ with the CE Program's requirements.

Commenter		Comment
Marion Lucas; Alcoa Power Generating, Inc (1)	no	Each company's admisnistrative and training functions are NOT a NERC resposiblity to dictate.

Response: The SPTSDT has removed ~~this requirement~~R7. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

| Ed Davis; Entergy Services (1) | no | We suggest R7 be deleted since it is overly prescriptive and should apply to the entity giving the training course, not the Responsible Entity of this standard. Responsible entities should keep records of the training of System Operators but should not be required to document the details of every course, especially if that course is developed by another entity and certified by some certification organization. |

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

| Dale Wadding; Dairyland Power Cooperative (5) | no | R7.9 and R7.10 are difficult to understand. Propose deleting both of these sub-requirements. |

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard .

| Southern Co (1,3,5,6) | no | We could agree, if under 7.10, that Req. 1.3 be removed as recommended in our earlier commments. |

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

| Santee Cooper (G2) | no | If the training is NERC Approved, the ILA for the training activity should be sufficient documentation. |

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

| CJ Ingersoll; CECD (3) | no | The training documentation does not need to be this extensive. As stated above, this type of documentation might be appropriate for a CEU program but should not be a requirement in this standard. Training records should be adequate to show the Type of Training, the Trainer, Date, and the Length of Time of the activitiy. |

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not

Commenter		Comment
just NERC CE approved activities. ~~The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.		
Tim Hattaway; Alabama Electric Coop (5)	no	The first six sub-requirements appear to be the items listed on a CEH learning activity application. R7.7, R7.8, R7.9, R7.10 are confusing and seem to be unmeasureable.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter		Comment
Richard Appel; Sunflower Electric Power Co (1,3,5)	no	This is unnessary and covered by the CEH application.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter		Comment
Ron Gunderson; NPPD (1)	no	The items list in R7 are typically outlined in skills or task-based training and are appropriate as a guideline, but appear to be too prescriptive. There are other valid training activities that wouldn't follow this format. This also needs to line up with the CEH program.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter		Comment
Duke Energy (G1) (1)	no	The items listed in Requirement 7 are appropriate as a guideline, but are too prescriptive. There are other valid training activities that do not match this format. This also needs to line up with the CEH program. Individual Learning Activity required by NERC for an approved continuing education hour has the requested information in this requirement.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter		Comment
John Kerr; GRDA	no	This list is too repetitive and complicated. Again, this whould be a guide and not a standard.

Response: The SPTSDT has removed this requirement. The audit process already requires entities to

Commenter		Comment
SPP OTWG (1,2)	no	This is a great list of activity components for the perfect program, but is not necessary for all activities and topics of training. These should be a part of a "Guide" provided as an attachment to the standard not a part of the standard as measured requirements.
		When some needs are discovered due to poor performance or lack of knowledge, the training may be done informally on the job by another qualified operator via assignment by a supervisor. Having this documentation for every training activity is not practical, but it is a good guide to strive for in formal training.

Response: The SPTSDT has removed R7~~this requirement~~. ~~The~~ The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The activity you describe in your comment as informal training, the SPTSDT considers coaching or communicating. Documentation for coaching and communicating is not required for this standard.

Commenter		Comment
Jim Sorrels; AEP (1)	no	While this is a very good list of activity components, AEP believes that these components should be a part of a "Guide," provided as an attachment to the standard, and not be a part of the standard as measured requirements.
		When developmental needs are discovered due to poor performance or lack of knowledge, the training may be done informally on the job by another qualified operator via assignment by a supervisor. Retaining this documentation for every training activity is not practical, but it is a good goal to strive for in formal training.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The activity you describe in your comment as informal training, the SPTSDT considers coaching or communicating. Documentation for coaching and communicating is not required for this standard.

Commenter		Comment
Jim Gunnell; SPP (2)	no	I would like to see Training Provider Qualifications added to the list.

Response: The SPTSDT has removed R7~~this requirement~~.

Commenter		Comment
NPCC CP9 (1, 2)	no	NPCC participating members believe that it is unnecessary to be overly prescriptive in how the training is performed. This should be left to the discretion of the entity. The purpose is to produce system operators that meet a defined level of proficiency. If the operator can prove a level of proficiency, the training was successful.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Howard Rulf; WeEnergies (3,4,5)	no	A company can do this for internal training. For training from a NERC CE provider, whether instructor led, on-line, or video, R7.1 through R7.5 and R7.8 should be satisfied by supplying the NERC CE number for the class. Entities will still need to perform R7.6, R 7.7, R7.9, and R7.10.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Roger McBeth; Northeast Utilities (1)	no	This requirement is overly prescriptive for the documentation of each training activity. While most of these requirements should be covered, they may not necessarily be covered in the same document/location.
		R.7.1 - Title of the activity (Yes) Lesson Plan Cover Page/Attendance Form
		R.7.2 - Training Provider (Yes) CONVEX on Cover Page/Attendance Form
		R.7.3 - Description of the Content Covered by Activity - (Yes) Lesson Plan Outline
		R.7.4 - Classroom Lesson Plan, DTS Exercise (Yes)
		R.7.5 - Tool or References (Yes) References listed in Lesson Plan
		R.7.6 - Identification of Task or tasks covered (Yes) Task to Training Matrix not in Lesson Plan
		R.7.7 - Conditions under which tasks are performed are typically implied or part of the terminal objective. (Yes)
		R.7.8 - Identification of Prerequisite training; typically Not Applicable or defined as part of the training sequence for the Initial Training Program but not formally listed in any document except the Initial Training Qualification Guide. (Yes)
		R.7.9. - Objectives and assessments Objectives are part of every lesson plan (Yes)
		R.7.10 - Practice in following the steps and using the tools. (No) May be applicable for skill training during OJT or DTS but not for knowledge requirements covered in a classroom training activity. Overly prescriptive to specify practice in following steps and using the tools and references.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Note that on-the-job training method of delivery in this standard is not distinguished from any other method of delivery. All reliability-related training covered by this standard is subject to the requirements of this standard, regardless of the delivery method.

Michael Scott; APS (1,5)	no	This R.7 section appears to be focused on the "I" of the ADDIE process, so I suggest combining sections R.6 and R.7 for simplicity. Rather than take each of the 10 items individually, here's a suggestion:
		R6. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct training that includes:
		R6.1 Training for new System Operators, as identified in B.R2.
		R6.2 Training for incumbent System Operators, as identified in B.R3.
		R6.3 Continuing education for incumbent System Operators, that includes training:
		• to correct identified performance gaps

Commenter		Comment
		• based on analysis decisions
		• on new or revised tasks
		R6.4 Drills and/or simulations on tasks that have high reliability-related criticality and low frequency of occurrence shall be conducted. This training shall include:
		R6.4.1 At least 32 hours of emergency operations or system restoration training, simulating the system conditions, operating procedures, and communication processes.
		R6.4.2 At least one exercise each year involving other entities, including all real-time operating positions likely to be involved in the actual event.
		R6.5 Retention of course completion documentation, including the course title, provider, attendee name, completion date, and grade.
		R6.5.1 If the training is NERC Approved, a copy of the course certificate will be retained in the operator's training file (If the training has been approved by NERC, the learning objectives, course materials, evaluations, etc. are already archived.).
		R6.5.2 If the training provided is not NERC Approved, a copy of the course materials shall be retained, including learning objectives, lesson plan if applicable, and evaluation.
		R6.5.3 Training records shall be retained for three years.
Response: The SPTSDT has removed R7~~this requirement~~, as well as modified several other requirements. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
Jason Shaver; ATC (1)	no	ATC does not agree with the requirements in R7 nor its sub-requirements. (R7.1 – 7.10) Again the SDT has ignored the reality of NERC CE Program requirements in writing this standard.
		ATC recommends that Requirement 7 be deleted along with its sub-requirements. At a minimum, an exception for collecting and reporting this data should be made for those programs that have been previously approved by NERC as part of their CE Program.
Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~ | | |
| FPL (1,3,5) | no | This requirement is overly prescriptive and is inappropriate for this Reliability standard. The format is a good tool for development. We support its use as it also provides consistency with the NERC CE process, but again, it does not belong in a requirement. |
| | | All of requirement R7 should be deleted. |

Commenter		Comment
Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
FRCC SO Subcommittee (1,2,5)	no	This requirement is overly prescriptive and is inappropriate for this Reliability standard. The format is a good tool for development. We support its use as it also provides consistency with the NERC CE process, but again, it does not belong in a requirement. It sends the wrong signal to the industry, one where compliance should focus on the specific details of individual training activities and away from overall quality of an organizations training initiatives. All of requirement R7 should be deleted.
Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
WECC OTS (1,2)	no	R7 lists documentation required for each "learning activity" used to support its reliability related training. The OTS does not support the requirements listed in R7 and instead suggests following the principles contained with the NERC Continuing Education Program for developing a valid learning activity. These items include: Learning objectives Training content or materials Identify delivery method and qualifications of instructors Learning assessment to assure the learning objectives have been achieved Evaluation of the learning activity Review and update The list in R7 includes several additional documentation requirements that are not beneficial to assuring quality learning activities. While OTS recognizes the NERC CE Program is independent of a Reliability Standard, the documentation requirements for non-NERC CE-approved learning activity should not exceed the well defined items listed for the CE Program.
Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
Allan George; Sunflower (1)	no	R.7.1. ,R.7.2., R.7.3., R.7.6., R.7.9., R.7.10., ARE ADEQUATE
Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
Richard Krajewski; Public Service Co of NM (1)	no	R7 lists documentation required for each "learning activity" used to support its reliability related training. PNM does not support the requirements listed in R7 and instead suggests following the principles contained with the NERC Continuing Education Program for developing a valid learning activity
Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		

Commenter		Comment
Brian Tuck; BPA (1)	no	R7 lists documentation requirements for each "learning activity" used to support reliability related training. BPA does not support the requirements listed. BPA suggests following the documentation principles described in the NERC Continuing Education Program. These items include:
		Learning Objectives
		Training Content and Materials
		Delivery Method and Qualifications of Instructors
		Learning Assessment to assure the learning objectives have been achieved
		Evaluation of the learning activity
		Review and update
		Requirements R7.6 - R7.9 are references to the tasks determined in the JTA that the learning activity is designed to cover. By complying with R7.6, the entity has made the link to the task analysis. The remaining items (R7.7-R7.9) are not beneficial to assuring quality learning activities. BPA recommends that items R7.7-R7.9 be removed.
		It is not clear whether requirement R7.10 is asking for special documentation of a component of a learning activity, or if it is listing additional requirements for learning activity content. This requirement is not beneficial to assuring quality learning activities, and should be removed.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Gordon Rawlings; BCTC (1)	no	BCTC generally supports the list in R7 as a good record of training. We note that the list is similar to the data required for learning activities to be approved by the NERC Continuing Education Program. The "NO" response is due to the following we believe are not necessary or beneficial:
		R7.7 "Identification of the conditions under which the associated task is performed
		(as identified in R1.1.)." As mentioned in Question #1, BCTC does not support identification of the conditions when a task is performed. Most tasks need to be performed under many conditions.
		R7.9 "Objectives and assessments that duplicate the criteria for successful
		performance identified in R1.7. and mastery of the knowledge and skills in
		R1.6." As mentioned in Question #1, separately identifying the criteria for successful performance of the task is not necessary. Successful "performance criteria" is usually executing the skills and knowledge necessary to do the task resulting in the desired outcome, essentially doing the task without mistakes. Additionally, many topics in operator training don't support the concept

Commenter		Comment
		that an operator can demonstrate performance of the task at the end of the learning activity. The task likely can't be performed until an operating condition on the system calls for the task to be performed, which may be days or weeks after the training took place. A "performance criteria" can be a general operating philosophy such as safe and error free operating of the system. We don't believe it is required to add performance critiera to "every task" performed.
		R7.10 As mentioned in Question #1, BCTC does not support including this in the Standard. Many tasks need to be performed either "alone or as part of a team" depending on normal operating or emergency conditions at the time. Whether a task is generally performed individually or as a team is a fundamental part of identifying the task and does need a separate reference in the standard.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Michael Clime; Ameren	no	The JTA and Needs Assesment should be used to develop the Training Activity. Other than the Title, Objectives, prerequisites, and a method for assessing the accomplishment of the objectives, the rest can be eliminated.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Dan Kay; South Mississippi EPA (4)	no	This should be the left to the employer, not required by NERC in a standard.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Alan Adamson; NYSRC (2)	no	How the training is performed should be at the discretion of the entity. The purpose is to produce system operators that meet a defined level of proficiency. If the operator can prove a level of proficiency the training was successful.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Allen Klassen; Westar (1)	no	This requires a huge amount of documentation (which doesn't make better training), Are you trying to sell software with this Standard?. To be specific, R7.6 requires identifying task from R1, then R7.7, R7.9 and R7.10 all require documentation of information already documented in R1 in association with the task(s) listed for R7.6, one circular reference should be enough.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

John Bussman:AECI (1,5,6)	Yes/no	Partly I do not agree with section concerning R1.1 to R.1.7

Response: The SPTSDT revised the Requirement 1 such that the methodology used to perform and

Commenter		Comment
Ron Falsetti; IESO (2)	Yes/no	This is a good list for inclusion in the training manual. However, many of them are a repeat of R1's and as such, can be combined with those listed in R1.

Response: The SPTSDT has removed R7this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

Robert Coish; MEHB (1, 3, 5, 6) MISO (1,6)	yes/no	The items list in R7 are typically outlined in skills or task-based training and are appropriate as a guideline, but appear to be too prescriptive. There are other valid training activities that wouldn't follow this format. This also needs to line up with the CEH program.

Response: The SPTSDT has removed R7this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

Matthew Santos; SDE&G	Yes/no	Is this going to be a required form from NERC stating as you have it in R7? (The JTA is driving the training program, everything has been identified) Could you explain why this would be needed for each activity/task and how it would help me?

Response: The SPTSDT has removed R7this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

Kathleen Goodman; ISO-NE (2) PJM (2) ISO/RTO Council (2)	Yes/no	If the question is "Do you agree that the list in R7 is useful in any Training Program?" then ISO New England (PJM) agrees that the items in the list are useful. If the question is "Do you agree that NERC mandate each item in the R7 list in order to have a valid Training Program?" ISO New England (PJM) does not agree that there is any basis for mandating those requirements. The proposed set may be a good set but it is not justified as the only set.

Response: The SPTSDT has removed R7this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

SCE&G ERO WG (1, 3, 5)	yes	What does the word "mastery" in this context mean? Are we saying anything less than a perfect score does not meet this requirement or is "proficient" a better word choice.

Response: The SPTSDT has removed R7this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

Mastery is a common training industry term used to indicate satisfactory performance of a task.

Brian Thumm; ITC (1)	yes	There may be times when not all of the items are applicable to a particular activity. NERC should ensure

Commenter		Comment
		that "Not Applicable" is an appropriate response when documenting training activity components. Otherwise, the list of training activity components should be a guideline for what to include in the analysis, and not a prescriptive list of components as currently written in the standard.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Will Franklin; Entergy (6)	yes	Again, the requirements for documentation are too are stringent. The way this is written, it appears that any reliability based training must essentially meet NERC CE requirements.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~. This standard does not require that reliability-related training be approved by the CE Program.

Commenter		Comment
Hydro One Networks (1)	yes	In general, these should be documented but there may be some training activities where not all of the items in R7.1 through R7.10 are applicable. Also, the associated training should include "Learning Objectives."

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
MRO (1,2)	yes	The industry should have a standard template to assist industry trainers to meet all the requirements listed in R7.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Mark Bennett; Gainesville Regional Utilities (5)	yes	I believe this needs to be completely eliminated the way it is written.What is needed is th student name, the "task' completion date.

Response: The SPTSDT has removed R7~~this requirement~~. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
TVA (1)	yes	
Michael Gammon; KCP&L (1)	yes	
WECC RCCWG (1,2)	yes	
Pepco Holdings (1)	yes	
SRP (1)	yes	
Gerald LaRose; NYPA (1)	yes	
James Hinson; ERCOT (2)	yes	
FirstEnergy (1,3,5,6)	yes	
William J. Smith; Allegheny Power (1)	yes	

7. **Do you think that every Reliability Coordinator, Balancing Authority, and Transmission Operator should use either a generic or a company-specific simulator for some drills and exercises? (Note that one of the Blackout Recommendations was that a full-scale simulator should be made available to provide operator training personnel with "hands-on" experience in dealing with possible emergency or other system conditions.) If not, please explain in the comment area.**

<mark>Summary Consideration:</mark>

<mark>Most ~~commentator~~commenters~~s~~ stated the use of a simulator enhanced or improved the simulation experience of the operator. However, some felt that these tools were too time consuming and difficult to operate and maintain to make them valuable at this time as a training tool. Overall the majority of ~~commentators~~commenters felt that the requirement to provide a generic or company-specific simulator was too prescriptive. The next largest number of ~~commentators~~commenters felt that the requirement of a simulator was too expensive. Several expressed concerns about the value of requiring a simulator for non-complex systems. One suggested rolling the whole standard into PER-002 and PER-004. One commentator expressed concern about the ability to schedule enough regional drills in a year to cover all operating personnel and suggested a three year window to accomplish this requirement. One ~~commentator~~commenter expressed concern that generic simulators are not "realistic" and therefore do not reinforce the training and may actually detract from it. Two ~~commentators~~commenters commenters stated that generic simulators were okay. One commenter stated that a company should be allowed to work with vendors or other sources for simulator time.</mark>

<mark>While the drafting team recognizes the value and realism added by the use of a generic or company specific simulator, the drafting team also recognizes and agrees that requiring a simulator would be too burdensome and prescriptive when alternate methods for accomplishing simulation type training are available and effective. The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the SPTSDT is not clear about the meaning of "control over a significant portion of load and generation" (p…1393).</mark>

Commenter		Comment
FRCC SO Subcommittee (1,2,5)	no	Simulators can be a critical and effective training tool. The problem with mandating their use is that some systems are not complex enough to warrant (technically or economically) the use of simulators for training their respective operators and the current applicability criteria of the standards process do not allow for flexibility of appropriate exemptions.
		We would also suggest that PER-002 and PER-004 remain in-place to provide the industry the flexibility and granularity that is appropriate to differentiate requirements for Reliability Coordinators (very complex) and BAs and TOPs, which in some cases may not be very complex systems (see overall comment below on question #15). We would suggest that the enhancements provided by the current draft of PER-005 be "rolled" into the content of PER-002 and PER-004.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
FPL (1,3,5)	no	Simulators can be a critical and effective training tool. The problem with mandating their use is that some systems are not complex enough to warrant (technically or economically) the use of simulators for training their respective operators and the current applicability criteria of the standards process do not allow for flexibility of appropriate exemptions.

Commenter		Comment

Ed Davis; Entergy Services (1)	no	The use of a simulator is helpful and a great tool for training but not necessary, especially for small responsible entities, and should be deleted.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

Santee Cooper (G2)	no	It should not be part of the standard that every company utilize a company-specific simulator. The wording "the use of drills and simulations" is fine.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

John Kerr; GRDA	no	Affordable, effective, and reliable simulation technology does not yet exist. This could be a financial burden on small entities. Table top drills at this time are more effective.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

Allan George; Sunflower (1)	no	Not every RC, BA, or TO, needs or can afford a simulator. The current requirements include simiulator hours so to maintain certification operators seek training facilities that provide them.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

The current certification requirements include simulation hours not simulator hours.

Gerald LaRose; NYPA (1)	no	While desirable, such a simulator tool may be prohibitively expensive to procure and maintain and update. "Lessons Learned", tabletop drills and functional exercises are acceptable alternatives that accomplish the same goals.
		Re 6.5.2: It is extremely difficult to schedule enough such inter-entity drills to be able to capture each Operator's participation on an annual basis given shift requirements, etc. A three-year per-Operator participation requirement, equivalent to an Audit span, is more readily accomplishable.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

The SPTSDT has removed ~~Requirement 6.5.2.~~R6.

Dan Kay; South Mississippi EPA (4)	no	This should be the left to the employer, not required by NERC in a standard.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain

Commenter		Comment
entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Allen Klassen; Westar (1)	no	Although I fully support the use of GOOD simulators, requiring the use of a simulator would force many entities to use the generic simulators which are not necessarily a benefit over a well-designed exercise. Many of the generic simulators are not "realistic" and therefore do not reinforce the training and may actually detract from it.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Brian Thumm; ITC (1)	no	The training standard should ensure that operator training is effective in producing knowledgeable system operators, and should not be prescriptive in the manner that the training is delivered. Simulations are more than just computer-based training sessions, or those performed in a dedicated control-room environment for the purpose of simulation training. Simulation can be non-computerized training sessions, and can be comprised of table-top drills, discussions, etc.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Tim Hattaway; Alabama Electric Coop (5)	no	The financial burden could be too great for smaller entities by requiring company specific simulators.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
CJ Ingersoll; CECD (3)	no	Individual trainings programs should be able to allocate resources as they deem necessary and beneficial to their specific organization.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Marion Lucas; Alcoa Power Generating, Inc (1)	no	Mandating that a training simulator drill is a REQUIREMENT would force small companies and/or those that have little or no impact on reliability of the Interconnection to incu un-warranted expense and could not pass a cost-benefit analysis by any reasonable person.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Gordon Rawlings; BCTC (1)	no	BCTC has simulator that models our system but we also recognize the benefits associated with other computer-based simulators whether generic or company specific. We have also used table to exercises and simulated events, not using the company simulator that have been as effective in training. BCTC does not support including this as a requirement in the Standard. Effective "simulation" of

Commenter		Comment
		either normal operation or an emergency event is the goal and can be accomplished through many different methods of simulation.

Dale Wadding; Dairyland Power Cooperative (5)	no	Although we use a simulator and feel that it is a useful tool, use of a simulator would be an unnecessary and/or unreasonable requirement for some entities. If the generic EPRI OTS or similar simulator was less problematic to install and use, it would be easier to agree with such a requirement.

Hydro One Networks (1)	no	The use of a company-specific simulator for training is an asset. However, time spent using "generic" simulators may be better spent specifically reviewing one's own system restoration requirements via table top exercises, group activities, drills, discussion, facilitated restoration plan sessions, etc.

Southern Co (1,3,5,6)	no	The benefit gained from required use of a simulator is difficult to quantify. Table-top exercises and drills can be just as effective at a significiantly reduced cost.

Pepco Holdings (1)	no	A simulator is not necessary and goes farther than that required for either annual training emergency or otherwise or for exercises within other types of training. There are other ways of including simulations in operator training.

Richard Appel; Sunflower Electric Power Co (1,3,5)	no	This would be great,but in the real world simulators are just to expensive except for the larger utilities and not available for everyone.

Michael Scott; APS (1,5)	no	Owning and maintaining a "simulator" may financially unfeasible for some entities. All entities can participate in "simulations", though, including tabletop drills, etc.

Commenter		Comment
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
WECC OTS (1,2)	no	As a group of trainers, OTS recognizes the benefits associated with a computer-based simulator whether generic or company specific. However, OTS does not support including this as a requirement in the Standard. Effective "simulation" of either normal operation or an emergency event is the goal and can be accomplished through other methods of simulation.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Mark Bennett; Gainesville Regional Utilities (5)	no	Again depending on the size of the system and how the loss of said system could affect the bulk electric system I am not sure that simulstion is needed. I agree that there are certain benefits derived from observing an individual systems configuration and flows during different contingencies.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393)..		
Richard Krajewski; Public Service Co of NM (1)	no	PNM recognizes the benefits associated with a computer-based simulator and uses both generic and company specific. However, PNM does not support including this as a requirement in the Standard. Effective "simulation" of either normal operation or an emergency event is the goal and can be and is accomplished through other methods of simulation at PNM.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393)..		
SPP OTWG (1,2)	no	This is good practice, but it may not be practical for every company to have a simulator that reflects the company's actual system. Simlulated practice can be sufficient for many entities.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393)..		
Jason Shaver; ATC (1)	no	ATC does not believe that this is the correct place to insert any drill exercises requirements. Any additional training requirement that NERC wants to place on certified operators should be made under the certification arm of NERC not through the standards process.
Response: This training standard is independent of the NERC certification requirements.		
TVA (1)	no	We do agree that the use of a simulator is the best way to practice drills and exercises, but we also believe that utilities should have the flexiblity to use other means (e.g. tabletop) to train and practice skills….especially very small

Commenter		Comment
		utilities that may not be able to afford a simulator.

<p style="color:blue">**Response:** The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393)..</p>

| Michael Gammon; KCP&L (1) | no | A simulated activity does not have to be dependent on a training simulator. There are table-top exercises and drills sufficient to meet training needs. In fact, many parts of an emergency exercise do not require the use of a simulator (e.g. field personnel at various locations to perform specific field tasks). |

<p style="color:blue">**Response:** The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).</p>

| SCE&G ERO WG (1, 3, 5) | no | It should not be part of the standard to require every company to use company-specific simulation for some drills. It should be left to the company to determine how it is most practical to meet the language "use of drills and simulation." |

<p style="color:blue">**Response:** The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).</p>

| ISO/RTO Council (2) | no | The IRC agrees that simulators can be valuable training tools

The IRC does not support requirements that mandate "How to" carry out a given standard. Although the IRC supports the use of near-real time Operating Training simulators, the IRC recognizes a simulator is not a necessary tool for conducting valid exercises. |

<p style="color:blue">**Response:** The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).</p>

| PJM (2) | no | PJM does not support requirements that mandate "How to" carry out a given standard. Although PJM does support the use of near-real time Operating Training simulators, PJM also recognizes a simulator is not a necessary tool for conducting valid excercises. A veteran trainer can accomplish higher quality and more relevant training by way of a well designed and executed table top exercise rather than a "generic" simulator or even a system specific OTS which is not kept current with the real time system. An OTS/DTS simulator is a tool for training rather than the training itself. |

<p style="color:blue">**Response:** The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).</p>

| Kathleen Goodman; ISO-NE (2) | no | ISO New England does not support requirements that mandate "How to" carry out a given standard. Although ISO New England supports the use of near-real time Operating Training simulators and in fact has a fully functioning simulator, we recognize a simulator is not a |

Commenter		Comment
		necessary tool for conducting valid excercises.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

Commenter		Comment
SRP (1) WECC RCCWG (1,2)	no	Partially agree. R6.5.1 needs to state "generic" simulator. Since most entities do not have simulators for their own systems, the generic simulator needs to be an option for this emergency training.

Response: The requirement does not require the use of simulators. It requires the use of "realistic drills and/or simulation."

Commenter		Comment
Ron Gunderson; NPPD (1)	Yes/no	Your question asks about the simulator's use during drills and exercizes. We agree that all certified operators should have some simulation based training (it could be a generic simulator). While nice to use a simulator during excerises, the drill should not be a slave to the tool. For example, very productive restoration excercises can be done without all participants simultaneiously using simulator. There are other very imporant aspects of drills (testing procedures and communications).

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

Commenter		Comment
Matthew Santos; SDE&G	Yes/no	Generic works for the concepts, system specific does the same but also gives the real flavor. This should not be made to be mandatory, table top drills do work and provide the concepts.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

Commenter		Comment
Michael Clime; Ameren	yes	I think table top paper type drills are pretty much a waste of time. However requiring everyone to have a company specific simulator is unrealistic. It pretty much takes one full time person to maintain a simulator, updating databases and making new scenarios and testing them. Also company specific simulators are expensive. I think that some very good concepts can be taught on a generic simulator, such as restoration concepts, voltage collapse, Ferantti rise, operating islands, synchronizing, etc;.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

Commenter		Comment
MRO (1,2)	yes	The MRO believes that user friendly simulators should be made available to the applicable entities, it does not believe that these entities should be required to have these simulators on site.

Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).

Commenter		Comment
Will Franklin; Entergy (6)	yes	This is idealistic. Of course the use of a simulator has benefits. The ability for entities to access a simulator may be cost prohibitive. Until the system operator training program matures, hands on simulation should be desired but table top exercises should be acceptable to meet simulation requirements. Some entities may have only a few specific reliability tasks, thus obtaining a simulator just for those few tasks may be impractical.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
John Bussman:AECI (1,5,6)	yes	However, NERC needs to allow a company to be able to work with vendors or other sources for simulator time in the entity does not have a company - specific simulator.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
MISO (1,6)	Yes/no	Your question asks about the simulator's use during drills and exercizes. We agree that all certified operators should have some simulation based training (it could be a generic simulator). While nice to use a simulator during excerises, the drill should not be a slave to the tool. For example, very productive restoration excercises can be done without all participants simultaneously using a simulator. There are other very imporant aspects of drills (testing procedures, plans and communications).
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393)..		
NPCC CP9 (1, 2)	Yes/no	Although NPCC participating members believe that a simulator holds great value in conducting operator training, it is not an absolute necessity. Many smaller entities have expressed concern that the cost of a simulator is excessive and depending on the size of their area may have the appropriate cost-benefit ratio. Valid training exercises may be conducted effectively without it.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Jim Sorrels; AEP (1)	yes	A simulator that reflects the operator's actual system is the best and is preferred over generic simulators. However, the use of generic simulators have benefits and should not be excluded. The use of simulators should not be exclusive of table top exercises as they too can prove to be very helpful.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Howard Rulf; WeEnergies (3,4,5)	yes	As long as this can also be satisfied by using a generic simulator such as the EPRI OTS.

Commenter		Comment
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Roger McBeth; Northeast Utilities (1)	yes	Since the skills and knowledge of several of the operator's critical tasks can not be adequately covered in a table top exercise, classroom discussion, or OJT, a company specific-simulator should be used for operator training. Unfortunately the vendors that provide system operator simulators are not well designed and require excessive support for scenario development and maintenance. The EPRI OTS Simulator may be the most cost efficient option for small training organizations. It can be made company specific to meet an organization's needs but will not provide the same user interface as a site specific training simulator.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
Duke Energy (G1) (1)	yes	Yes, the key word being *some*. certified operators should have some simulation based training (generic or specific simulator), but training activities should not rely on any one tool or method exclusively.
Response: The SPTSDT has considered FERC Order 693, requiring the use of simulators for certain entities. At this time, the drafting team is not clear about the meaning of "control over a significant portion of load and generation" (§1393).		
William J. Smith; Allegheny Power (1)	Yes	
Jim Gunnell; SPP (2)	Yes	
Ron Falsetti; IESO (2)	Yes	
James Hinson; ERCOT (2)	Yes	
FirstEnergy (1,3,5,6)	Yes	
Alan Adamson; NYSRC (2)	Yes	
Brian Tuck; BPA (1)	Yes	
Robert Coish; MEHB (1, 3, 5, 6)	Yes	
Edward J. Carmen; Baltimore Gas & Electric (1)	Yes	

8. **Do you agree that there should be a record of each System Operator's training that shows the tasks that System Operator has already mastered and the tasks where performance needs improvement? (R8.)**

==Summary Consideration:==

==Overall the ~~commentators~~commenters felt that R8 was too burdensome or prescriptive. In general, the ~~commentators~~commenters that had concerns about the recommended training records agreed that records be generated, but not rating records. Some cited the shear number of tasks involved as justification for concern about this requirement being burdensome. One suggested records be kept by exception rather than requiring including all tasks mastered. Many pointed to the CEH program as justification for eliminating this requirement from the standard. Some pointed to the supervisory evaluation process as the appropriate place for managing performance issues. In response to commenters concerns, the drafting team has removed this requirement.==

==Based on stakeholder comments, the SPTSDT removed this requirement, with the understanding that the audit process requires entities to produce evidence of compliance.==

Group discussion: While this specific requirement was removed we added the new R4: Each… shall assess the capabilities of each real-time operator to perform each assigned tasks that is on its company-specific reliability-related tasks. May want to consider linking the two "versions".

Look at all responses

Commenter		Comment
Tim Hattaway; Alabama Electric Coop (5)		CEH program requires all approved system operator training to be recorded.

Response: The SPTSDT does not ~~Not~~ have enough detail to respond to the comment.

| SPP OTWG (1,2) | No | This question does not match R8. The standards should require training records, but not rating records. |

Response: The SPTSDT agrees that there may be a misalignment between the question and the requirement and will strive to align the requirements and the questions moving forward.

The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

| Allan George; Sunflower (1) | No | It is not really necessary, CEH record keeping is adequate. |

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

| WECC RCCWG (1,2) | no | This requirement forces entities to maintain two separate training programs for each operator. One program for CEH's and maintaining the NERC Certification and another independent program to meet the R8 requirement. This is unnecessary. Entities should be self compliant in determining operators performance without subjecting them to the documentation of R8. |

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~. The SPTSDT believes there is nothing in this standard that~~

Commenter		Comment
~~conflicts with the CE Program requirements.~~		
Jason Shaver; ATC (1)	no	Although ATC agrees with the question as posed above, this is not consistent with the way the proposed standard is written; "should" versus "shall."
		In addition, if an entity is required to document this information, the entity should be allowed to view the completed CE course information in regard to their employees in the NERC database once implemented. Currently, NERC has restricted access of this information to the individual alone. Apart from having this flexibility, this requirement is duplicative and increases the administrative burden on the industry without enhancing system reliability or leading to more educated system operators. Why make an employer report the same information that NERC already has available to a large extent via its CE Program?

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements. ~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

| Dan Kay; South Mississippi EPA (4) | no | This should be the left to the employer, not required by NERC in a standard. |

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard..

| TVA (1) | no | We agree with the first part of the sentence that states that there should be a record of the operator's qualifications, but do not agree that there be a continuous process of evaluation for the purpose of new training plan development. |
| | | If there is a developmental problem, it will be handled within the organization's Performance Management Process. Overall performance improvement is addressed at the function level in the Continued Training process. |

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

| Santee Cooper (G2) | no | Evaluations by supervision and management would identify areas that need improvement. Once an operator becomes a system operator they should be at a certain level of competency such that individualized training is not needed. Too much individualized training may be an indication of a poor performing operator that is not compatible with the job. |

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

| Ed Davis; Entergy Services (1) | No | We believe responsible entities should keep records concerning the development of each system operator. However, we think that it is not necessary to specify that in |

Commenter		Comment
		a reliability standard for the BES. Please see our suggested changes contained our response to Question 19 in this document, including our conerns regarding Sytsem Operators under contract or System Operators performing tasks identified in R1 under delegation agreement.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The SPTSDT has significantly revised the standard based on industry feedback.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. <u>The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.</u>~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Based on stakeholder feedback the standard has been reworded such that the successful performance is determined using the systematic approach to training by the entity.

Commenter		Comment
Marion Lucas; Alcoa Power Generating, Inc (1)	No	This is truly a salary review/administration function and is NOT something NERC should be involved in.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
CJ Ingersoll; CECD (3)	No	Documentation should be by exception, reflecting only performance improvement needs, considering that there are already going to be records in place indicating the training that has been completed per R.7.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Mark Bennett; Gainesville Regional Utilities (5)	no	Either they are competent or not. If they don't they need to do it again.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Richard Krajewski; Public Service Co of NM (1)	no	PNM supports keeping a training record for each operator but does not support a separate record listing all the tasks identified in the job task analysis and whether the operator has "mastered" that individual task or still "needs improvement" because it is a more detailed record keeping than is needed. PNM does not agree that there is benefit to add performance critiera to "every task" performed.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Roger McBeth; Northeast Utilities (1)	no	With a typical task list of over 300 tasks this would be an administrative burden that will require organizations to purchase a complex Learning Management System. Typically Learning Management System reporting will provide reports for completion of Training Activities not tasks. A Learning Management Systems will track Training Activities (Classroom Lesson Plans, OJT Guides, Table

Commenter		Comment
		Top Exercises, Simulator Scenarios, etc) and those training activities should be tied to the tasks covered by the learning activity.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Southern Co (1,3,5,6)	no	While we agree training records should be maintained, the criteria defined for "each" task identified in the JTA would be overly burdensome. The current Reliability Exam identifies 203 operator tasks. The focus should be on the performance gaps or developmental needs identified in the gap analysis. This is not what the document states. This needs to be clarified. We do not need to track every task of every operator in the JTA.
		Perhaps the training records is best contained in the employee's performance appraisals under accomplishments (tasks mastered) and developmental needs (tasks needing improvement).

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard

Commenter		Comment
Michael Scott; APS (1,5)	no	As mentioned earlier on question 2, a one-time assessment of an incumbent operator's training needs, in relation to a newly designed training program is appropriate. After the operator meets these needs, the SAT process includes feedback measures that identify opportunities for performance improvement.
		Continuously evaluating each and every qualified operator against a catalog of tasks in order to repeatedly design a unique, customized annual training plan adds an additional layer of administrative burden that would be cumbersome, expensive, and ineffective.
		We recommend dropping R8 in its entirety.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Will Franklin; Entergy (6)	no	Documentation should be required, but as long as the training program covers demonstrating the skill requirement and keeping records of who has completed the task, then maintaining a record of task completion for every individual is excessively burdensome.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard. The training standard has been revised to require reporting by job position rather than documenting all tasks mastered[ljc4].

Commenter		Comment
Michael Clime; Ameren	no	In the heirarchy of training, tasks are at the very bottom. It would be almost impossible to try and track each task for each Operator.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
SRP (1)	no	This implies that an annual assessment of job task mastery would be conducted. Then you would be requiring records of training delivered to fill performance gaps from that

Commenter		Comment
		annual assessment. In theory, these records would have to be exclusive of your training records that keep track of when a class can be retaken for credential maintenance, which is not annually. You would be chasing two separate and unequal targets: performance based training versus time sensitive credential maintenance education. One supports reliability. The other looks good on paper. Doing both simultaneously is an administrative nightmare.— This requirement forces entities to administer two separate training programs for each operator. One program for CEH's and maintaining NERC Certification and another independent program to meet the R8 requirement. This is unnecessary. Entities should be self compliant in determining operators performance without subjecting them to the documentation of R8.

Response: The SPTSDT has removed this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

Commenter		Comment
Jim Sorrels; AEP (1)	no	AEP believes that there should not be a record specific to tasks needing performance improvement, but rather should be evaluated at the group level. Training issues are best identified by group and training provided to the group.
		To the extent that individual performance issues occur, this becomes an individual job performance concern that is addressed through various human resource management approaches.
		Documentation for each task as specified by R8 would require extensive data entry into an LMS, in addition to the documentation needed to provide before entering data into an LMS. Another factor to consider is enabling the LMS to accept/accommodate such documentation for view by administrators and operators. The implementation schedule would need to be reconsidered if these types of changes are necessary in the LMS system.

Response: The SPTSDT has removed this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
John Kerr; GRDA	no	This could be complicated and time comsuming. Delete R8.

Response: The SPTSDT has removed this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Allen Klassen; Westar (1)	no	I agree with the items in R8 but not with what this question asks.

Response: The SPTSDT has removed this requirement. The audit process already requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Brian Tuck; BPA (1)	no	BPA supports keeping a training record for each system operator, but finds the record-keeping requirements described in R8.1 and R8.2 to be unnecessarily detailed. The performance assessment criteria and duration of

Commenter		Comment
		learning activity described in 8.1 and 8.2 are ~~already~~ captured in the learning activity documentation and assessment of meeting learning objectives. Separately identifying these items here is unnecessary. BPA suggests that a training record which consists of a historical record of the annual training plan and the dates that training activities were successfully completed would be an adequate record for tracking progress toward meeting competency requirements of the assigned job.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Matthew Santos; SDE&G	Yes/no	We always want to track an Operator's progress. Take Operators off shift and test them in reliability related tasks to see if there performance meets the criteria. If the training plan is based on the JTA this is already being done in initial training, refresher training. This is more of a question not R8. The tracking of a Operator training should include how well they did on exams, how frequently this training has been repeated, any follow up done and what other training he is due for, etc.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
WECC OTS (1,2)	Yes/no	The question asks if a record of each operators training that shows the tasks mastered and the tasks where performance needs improvement. This is somewhat different than the requirements listed in R8 which seem to deal with meeting performance criteria. OTS supports keeping a training record for each operator but does not support the following:

1. A separate record listing all the tasks identified in the job task analysis and whether the operator has "mastered" that individual task or still "needs improvement" is more detailed recording keeping than is needed. The training program and annual training plan for each operator is designed to fill identified gaps in an operator's skill and knowledge needed to accomplish the tasks, thus the concept is addressed in designing the training plan rather than requiring a separate list of the operator's standing with the tasks.

2. Section R8 seems to focus on documenting how the "performance critiera" is met. It indicates appliable entities must track their operator's progress in using training to obtain the knowledge, skill and experience needed to "meet the performance criteria specified in R1.7. for the tasks identified in R1." As OTS has previously mentioned, we fully support a learning assessment at the end of each learning activity to determine if the learning objectives were met for the activity. Successful "performance criteria" is usually executing the skills and knowledge necessary to do the task correctly and in the right timeframe resulting in the desired outcome, essentially doing the task without mistakes. Many topics in operator training do not support the concept that an operator can demonstrate "performance" of the task at the end of the learning activity. Many tasks cannot be performed until an operating |

Commenter		Comment
		condition on the system calls for the task to be performed, which may be days or weeks after the training took place. A "performance criteria" can be a general operating philosophy such as safe and error free operating of the system, but it will be a burden and does not provide and benefit to add performance critiera to "every task" performed.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
ISO/RTO Council (2) PJM (2) Kathleen Goodman; ISO-NE (2)	Yes/no	The IRC (PJM) (ISO-NE) agrees that a training results tracking system is a valid Training task, but questions whether or not this task rises to the level of a NERC standard. Note: Question 8 refers to Requirement 8. However, Question 8 asks a question (relating to documenting operator needs) that is not part of Requirement 8 (relating to training only)

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The SPTSDT agrees that there may be a misalignment between the question and the requirement and will strive to align the requirements and the questions moving forward.

Commenter		Comment
MISO (1,6) Ron Gunderson; NPPD (1)	Yes/no	We agree with "should", but R8 says "shall" and identifies it as a medium risk requirement. The design of an item in a training program (or lack thereof), does not put the Interconnection at risk of cascading.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard

Commenter		Comment
Michael Gammon; KCP&L (1)	yes	I think the reference in R8.2 should be for training identified under R4. R7 seems to be the information needed for tracking and R8 is the requirement for tracking.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Alan Adamson; NYSRC (2)	Yes/no	The entity should have records showing the system operators have either mastered a proficiency or have not.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
NPCC CP9 (1, 2)	Yes/no	The entity should have records showing the system operators have either mastered a proficiency or have not but does this rise to the level of importance that it needs to be stated in a NERC-ERO Reliability Standard? This type of information will be maintained in a normal "course of business" and doesn't need to be specified here.

Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

Commenter		Comment
Gordon Rawlings; BCTC (1)	Yes/no	The question asks if a record of each operators training that shows the tasks mastered and the tasks where performance needs improvement. This is somewhat

Commenter		Comment
		different than the requirements listed in R8 which seem to deal with meeting performance criteria. We caution that the administrative work already involved with Certifcation, Continuing Education along with external and internal training has grown by 10 fold in the past 3 - 4 years. BCTC supports keeping a training record for each operator but does not support the following:
		1. A separate record listing all the tasks identified in the job task analysis and whether the operator has "mastered" that individual task or still "needs improvement" is more detailed recording keeping than is needed. The training program and annual training plan for each operator is designed to fill identified gaps in an operator's skill and knowledge needed to accomplish the tasks, thus the concept is addressed in designing the training plan rather than requiring a separate list of the operator's standing with the tasks.
		2. Section R8 seems to focus on documenting how the "performance critiera" is met. It indicates appliable entities must track their operator's progress in using training to obtain the knowledge, skill and experience needed to "meet the performance criteria specified in R1.7. for the tasks identified in R1." BCTC supports a learning assessment at the end of each learning activity to determine if the training objectives were met for the class. Separately identifying the criteria for successful "performance" of the task is unnecessary. Successful "performance criteria" is usually executing the skills and knowledge necessary to do the task resulting in the desired outcome, essentially doing the task without mistakes. Additionally, many topics in operator training don't support the concept that an operator can perform the task at the end of the learning activity. The task likely can't be performed until an operating condition on the system calls for the task to be performed, which may be days or weeks after the training took place. A "performance criteria" can be an operating philosophy such as safe and error free operation of the system but it will be unbenficially burdensome to add performance critiera to "every task" performed.

Response: The SPTSDT has removed this requirement. ~~The~~ audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. ~~The~~ standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements. ~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter		Comment
Duke Energy (G1) (1)	yes	These requirements are being done as part of the Continuing Education program. Individual Learning Activity required by NERC for an approved continuing education hour has the requested information in this requirement. Why not have a single requirement simply to adhere to the Continuing Education program?

Response: The SPTSDT has removed this requirement. ~~The~~ audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.

The CE Program is not a part of this standard. ~~The~~ standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict

Commenter		Comment
with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~		
Richard Appel; Sunflower Electric Power Co (1,3,5)	yes	This is already covered by requiring operatore to have CEH's.
Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard. The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~		
SCE&G ERO WG (1, 3, 5)	yes	What does the word "mastery" in this context mean? Are we saying anything less than a perfect score meets this requirement or is "proficient" a better word choice.
Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
John Bussman:AECI (1,5,6)	yes	We think there should be system operator training records. However, not necessarily in the way stated
Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
William J. Smith; Allegheny Power (1)	yes	This should apply to entry-level or newly-hired experienced system operator only.
Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
Jim Gunnell; SPP (2)	yes	I'll reiterate the importance of having an assessment tool or tools that can clearly assess "mastery". This should be a rubric or assessment with levels of competency. The more granular, the better. If we rely on a simple checklist, we'll look back to discover an overabundance of Master Operators, which could reflect a false sense of competency across the industry.
Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
James Hinson; ERCOT (2)	yes	How would we designate mastering a skill versus just attending a class and getting a 70%
Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
Hydro One Networks (1)	yes	Training records for each individual operator should be kept. Measures of competency utilized should include simulations, testing, completed checklists, and job performance appraisals.
Response: The SPTSDT has removed this requirement. The audit process ~~already~~ requires entities to produce their evidence of compliance to any standard.		
Dale Wadding; Dairyland Power Cooperative (5)	yes	

Commenter		Comment
Edward J. Carmen; Baltimore Gas & Electric (1)	yes	
Robert Coish; MEHB (1, 3, 5, 6)	yes	
FRCC SO Subcommittee (1,2,5)	yes	
FPL (1,3,5)	yes	
MRO (1,2)	yes	
Pepco Holdings (1)	yes	
Brian Thumm; ITC (1)	yes	
FirstEnergy (1,3,5,6)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
Gerald LaRose; NYPA (1)	yes	
Ron Falsetti; IESO (2)	yes	

9. **Do you agree that entities should evaluate their training programs every year? (R9.)**

Summary Consideration:

The majority of the commenters agreed that entities should evaluate their training programs every year. The majority of the stakeholders ~~and the drafting team~~also support~~s~~ an annual review and recognize~~s~~ that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.

In the second draft version of the standard, the SPTSDT revised Requirement 1 such that it now identifies the phases of the SAT process that must be included in the development of the training, including analysis, design, development, implementation, and evaluation. R9 in the first draft version of standard addressed the evaluation phase of the SAT process. Therefore with the revised R1, R9, which described the requirements for the evaluation phase of the SAT process, was removed in the revised standard. ~~The SPTSDT removed from the requirement the specific information sources that should be used for the evaluation.~~

Commenter		Comment
John Kerr; GRDA	no	Evaluation should occurs after each training session, but evaluation of the entire training program should not be required each year.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement. .~~

| Matthew Santos; SDE&G | no | We evaluate our training before we deliver it each time to see if it applies, there are so many changes on the system and in operating procedures we make modifications to the training. To say to do it every year is not practical (You are to late). This part of the Standard should just say "Evaluate your training program as needed". Doing it this way eliminates your suggested annual evaluation of the entire training program. I think that R9.1, R9.2 & R9.3 (Post feed back) is good for anything you missed prior to delivering the training and make it better for next delivery. |

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~: Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

| Kathleen Goodman; ISO-NE (2) ISO/RTO Council (2) | no | An annual evaluation of training programs is a good practice, it is important but it is not required. As with other proposed requirements, this requirement does not provide a quantitative measure related to evaluation. |

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

Commenter		Comment
~~The~~methodology. The SAT methodology supports a variety of approaches to evaluate training. This standard is not prescribing any one method, allowing flexibility.		
PJM (2)	no	An annual evaluation of training programs is a good practice, it is important but it is not required. As with other proposed requirements, this requirement does not provide a quantitative measure related to evaluation. There is no explicit template or document detailing how program evaluation is to be conducted. To qualify as a Standard, there need to be specific measures. This is an example where an accreditation process for real time operating personnel training programs would be a better fit than a Training Standard.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology.~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

~~The~~ The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.

Dale Wadding; Dairyland Power Cooperative (5)	no	Annual evaluation would be an unnecessary administrative burden. Propose requring this every three years or whenever there is a substantive change in the system operator JTA, whichever occurs first.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

Ed Davis; Entergy Services (1)	no	We believe responsible entities should continually evaluate their training programs. However, we think that it is not necessary to specify that in a reliability standard for the BES and R9 should be deleted from this standard.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology.~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

~~The~~ The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.

Marion Lucas; Alcoa Power Generating, Inc (1)	no	I agree that training programs should be reviewed but not necessarily on an annual basis. Again this is part of the company's administration function not NERC's.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent~~

Commenter		Comment
~~evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~ The SAT <u>methodology</u> supports a variety of approaches to evaluate training. <u>This requirement is not prescribing any one method, allowing flexibility.</u>		
CJ Ingersoll; CECD (3)	no	CECD does feel it is appropriate to evaluate the program but disagrees with the information sources reflected in the current draft.
Response: The SPTSDT has insufficient information to respond to this comment. <u>~~Please provide alternative information sources for consideration.~~</u>		
Pepco Holdings (1)	no	Periodic evaluation is important, but it is not necessary to evaluate on an annual basis. Rather, the evaluation should be based on known changes to the system, training methods or tasks and should be conducted before the next use of the materials.
Response: <u>The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology.</u> ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~ The SAT <u>methodology</u> supports a variety of approaches to evaluate training. <u>This requirement is not prescribing any one method, allowing flexibility.</u>		
Allen Klassen; Westar (1)	no	This is too frequent, need to evaluate a "program" by results and trends over time, suggest 3 year evaluation. This does not preclude evaluating and improving elements of the "program" more often.
Response: <u>The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology.</u> ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~ The SAT <u>methodology</u> supports a variety of approaches to evaluate training. <u>This requirement is not prescribing any one method, allowing flexibility.</u>		
Michael Clime; Ameren	no	Training programs should be evaluated and updated as things change. A complete evalution could be done every three years.
Response: <u>The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. :</u> ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~ The SAT <u>methodology</u> supports a variety of approaches to evaluate training. <u>This requirement is not prescribing any one method, allowing flexibility.</u>		
Michael Scott; APS (1,5)	no	An eighteen-month self-assessment (strategically located between the triennial audits) would be effective and cost-efficient.
Response: <u>The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the</u>		

Commenter		Comment

revised R1, as part of the SAT methodology. ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.

Brian Thumm; ITC (1)	no	Periodic review of operator training programs should be required, but annual reviews may be excessive. Biannual evaluations would be more appropriate. The standard should also describe by whome the evaluation should be performed. An independent audit of the training program would likely produce different results than if the training manager were to assess the incumbent program.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

~~The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~

Dan Kay; South Mississippi EPA (4)	no	This should be the left to the employer, not required by NERC in a standard.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

~~The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~

Hydro One Networks (1)	Yes/no	Training program evaluation and improvement should be an ongoing process. If the standard specifies a time period, a one-year cycle may be too long. Any specified time should add the words "as a minimum." The response to feedback and lessons learned should be used to improve training on a continuous basis. Adjustments should be made to the curricula, design, development, and implementation of training as required and practical.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement. The requirement has been modified to include the~~

Commenter		Comment
following words "at least annually". The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.		
Ron Falsetti; IESO (2)	Yes/no	This will help the entity in its annual review of its training plan, but is part of the annual training plan itself (4, above).
Response: The SPTSDT agrees with your comment.Agree.		
Ron Gunderson; NPPD (1) Robert Coish; MEHB (1, 3, 5, 6) MISO (1,6)	Yes/no	We agree with "should", but R9 says "shall" and identifies it as a medium risk requirement. The design of an item in a training program (or lack thereof), does not put the Interconnection at risk of cascading. Requirements 4 and 9 could be combined and simplified (provide annual review and a summary of changes).
Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. The requirements are not optional. Therefore, the requirements use the word "shall". The SPTSDT has revised the risk factor from a Medium risk to a Low risk.		
Jason Shaver; ATC (1)	yes	Although ATC agrees with the question as posed above, this is not consistent with the way proposed Requirement 9 is written. ATC is supportive of conducting an annual review of training programs; however, Requirement 9 is overly prescriptive. ATC proposes that the following change be made: Each RC, BA and TO shall evaluate its System Operator training program to determine if the training is meeting their system operators' needs and, if not, use the results to update the program to correct identified deficiencies.
Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.		
SCE&G ERO WG (1, 3, 5)	yes	What constitutes an "evaluation?"
Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. : Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement. Evaluation is one of phases of the SAT. The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. The SPTSDT has removed the specific references to information sources suggested to conduct the evaluation.		
Duke Energy (G1) (1)	yes	Is an evaluation of the training program to be able to train to a JTA that is changing (i.e. this has the potential of chasing a moving target)? Requirements 4 and 9 could be

Commenter		Comment
		combined and simplified (provide annual review and a summary of changes).

Response: Insufficient information to respond. The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.

Commenter		Comment
Michael Gammon; KCP&L (1)	yes	Annually seems a bit over the top, however, once a program is implemented, it should not take very much to evaluate a training program each year including the sources for feedback as they are available.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.

Commenter		Comment
Jim Gunnell; SPP (2)	yes	At least once per year. These evaluations should include recommendations for improvement and implementation timelines for making such improvements. Participant feedback should be a component of these evaluations.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. Agreed. The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.

Commenter		Comment
NPCC CP9 (1, 2)	yes	NPCC participating members believe that a yearly review is laudable and good practice, but should not be a requirement.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.

Commenter		Comment
WECC OTS (1,2)	yes	OTS supports a requirement for yearly evaluation of the training program "to meet the criteria for successful performance as identified in R1.7." provided the performance criteria is not task specific as mentioned above in Questions #1 and 8.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.

Commenter		Comment
~~The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~		
Gordon Rawlings; BCTC (1)	yes	BCTC supports a requirement for yearly evaluation of the training program "to meet the criteria for successful performance as identified in R1.7." provided the performance criteria is not task specific as mentioned above in Questions #1 and 8. We would support a simple gap analysis be performed to determine what worked and what didn't work.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. ~~Together with the majority of the stakeholder comments, the drafting team supports an evaluation of the training program on a regular periodic basis to ensure that the program stays current and meets the needs of the organization and the employee. The majority of the stakeholders and the drafting team supports an annual review and recognizes that more frequent evaluations as part of the learning activity can contribute to meeting the annual review requirement.~~

~~The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~

Commenter		Comment
MRO (1,2)	yes	It appears that based in the requirements listed under R9. that this is an ongoing exercise and is accomplished annually if the requirements are met. Further, please clarify the intent of R9.3.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. ~~The SPTSDT has removed the specific references to information sources suggested to conduct the evaluation. The SAT supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility.~~

Commenter		Comment
Will Franklin; Entergy (6)	yes	However, R9 is redundant. Evaluating the training program is inherent in developing an annual plan as identified in R4.

Response: The SPTSDT has removed R9 and rolled the requirement to conduct evaluations into the revised R1, as part of the SAT methodology. The SAT methodology supports a variety of approaches to evaluate training. This requirement is not prescribing any one method, allowing flexibility. ~~Requirement 4 is evaluating the training plan; Requirement 9 is evaluating the training program. These are two separate components of the SAT.~~

Commenter		Comment
Richard Krajewski; Public Service Co of NM (1)	yes	Provided the performance criteria is not task specific.

Response: The SPTSDT has ~~I~~insufficient information to respond.

Commenter		Comment
William J. Smith; Allegheny Power (1)	Yes/no	
Edward J. Carmen; Baltimore Gas & Electric (1)	yes	
Santee Cooper (G2)	yes	
FRCC SO Subcommittee (1,2,5)	yes	
TVA (1)	yes	

Commenter		Comment
FPL (1,3,5)	yes	
SPP OTWG (1,2)	yes	
WECC RCCWG (1,2)	yes	
Mark Bennett; Gainesville Regional Utilities (5)	yes	
Southern Co (1,3,5,6)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
Roger McBeth; Northeast Utilities (1)	yes	
Allan George; Sunflower (1)	yes	
John Bussman:AECI (1,5,6)	yes	
SRP (1)	yes	
Jim Sorrels; AEP (1)	yes	
James Hinson; ERCOT (2)	yes	
FirstEnergy (1,3,5,6)	yes	
Alan Adamson; NYSRC (2)	yes	
Brian Tuck; BPA (1)	yes	

10. Do you agree that requiring entities to update their training materials as needed before the materials are used as necessary?

Summary:

The comments express overall agreement with the concept of keeping training material up to date. There are concerns with the methods that can be used to do this and the viability of this as a measurable requirement for the proposed standard. Based on stakeholder feedback, the SPTSDT removed this requirement and updated the measures.

Commenter		Comment
Richard Appel; Sunflower Electric Power Co (1,3,5)	no	Not requiring but allowing upgrades as needed.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Mark Bennett; Gainesville Regional Utilities (5)	no	Let the entities train as they see fit within the structure of PER-002
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Michael Clime; Ameren	no	Why would any Trainer not do this anyway. Why do we need a Standard for it?
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
SCE&G ERO WG (1, 3, 5)	no	Is this not already covered in R5.1.2 implicity? This proposed requirement is fundamental to training and does not need to be required.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Marion Lucas; Alcoa Power Generating, Inc (1)	no	Unless major system changes or major NERC rules change, the company's training plans need not be changed or reviewed that often. Every 3 years would be more than adequate to review training plans.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Ed Davis; Entergy Services (1)	no	We believe responsible entities should update their training materials. However, we think that it is not necessary to specify that in a reliability standard for the BES and R10 should be deleted from this standard.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Jim Sorrels; AEP (1)	no	No. We agree with the concept, just not the wording of R10. As presently worded, it should be a guideline not a requirement. Keep in mind that NERC itself has a history of using old reference material and training documents. NERC certification exams do not test the user on the most recent and current Reliability Standards, rather for practical purposes, the exam has a cut-off date for which Standard Revisions will be included in the exam. This typically results in an examinee being tested on some Standards that are not the current version at the time of their exam.

Commenter		Comment
		Again we agree in concept that all entities need to keep their training materials current and applicable. But, for this to be a requirement, it needs different and more measurable criteria then presently in R10.

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| John Bussman:AECI (1,5,6) | no | If materials are being used on a dailey, weekly and monthly basis then updates before using should not be required. There should be an annual review. |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| Hydro One Networks (1) | no | Although desirable, using updated materials may not always be required. In some cases it is a necessity while in others it is not. Entities should make an evaluation as to the suitability of their materials, facilitator, etc. before using it. |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| Dan Kay; South Mississippi EPA (4) | no | This should be the left to the employer, not required by NERC in a standard. |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| Allen Klassen; Westar (1) | no | It is more important to get the training to the operators than to update materials. This can be covered by explaining any portion of the materials that may be outdated or incorrect, rather than not being able to provide prompt and timely training because of a requirement that all materials have been updated. This requirement might prohibit someone from using a training video that contains excellent information but also includes a reference to an outdated requirement or procedure (90% corect, 10% wrong). |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| Alan Adamson; NYSRC (2) | no | |
| ISO/RTO Council (2) Kathleen Goodman; ISO-NE (2) | Yes/no | In response to the question, the IRC (ISO-NE) agrees that training materials should be up-to-date. In response to the proposed R10, the associated measures have no relationship to evaluating whether or not the materials are up-to-date. The Drafting Team must more accurately define the term "accurately reflects" . |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| Ron Gunderson; NPPD (1) | Yes/no | Your question does not mirror R10. Yes, material should be reviewed. R10 appears to be something that can not be measured, with the exception of applying it after the fact when the operator didn't have perfect knowledge. Also, the |
| Robert Coish; MEHB (1, 3, 5, 6) | yes | measure implies that even training that will not be offered in |

Commenter		Comment
MISO (1,6)		a given year must be annually updated. This is another requirement that should be aligned with the CEH program.

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| PJM (2) | Yes/no | In response to the question, PJM agrees that training materials should be up-to-date. |
| | | In response to the proposed R10, the associated measures have no relationship to evaluating whether or not the materials are up-to-date. The Drafting Team must more accurately define the term "accurately reflects" . Also, there is no specificity identifed as to what constitutes "current operating environment". What is required to determine if an entity is in compliance or out of compliance? |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

Matthew Santos; SDE&G	Yes/no	Okay you have done a JTA and built your training program and made adjustments to the JTA (Kept it up to date) you will be training your folks in the current operating environment. If not, go and sit out on the floor in real time and observe to see if the training is up to date with what the Operators are doing. Does this requirement really need to be stated?
		Define "accurately reflects"
		Question does not reflect standard as it is stated

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

| Duke Energy (G1) (1) | yes | Yes, material should be reviewed. Here again the question does not match the requirement referenced. Requirement 10 appears to be something that cannot be effectively measured, with the exception of applying it after the fact when the operator didn't have perfect knowledge. In addition, the measure implies that even training that will not be offered in a given year must be annually updated. This is another requirement that should be aligned with the CEH program. |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

| Howard Rulf; WeEnergies (3,4,5) | yes | I agree with the wording of question #10. Wording in R10 is different than this question though. It requires that the training program reflect the "current" operating environment. R10 should not be worded to preclude training on known changes/improvements before they are implemented. |

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the

Commenter		Comment
		standard.
Jason Shaver; ATC (1)	yes	Although ATC agrees with the question as posed above, this is not consistent with the way proposed Requirement 10 is written. ATC proposes that the SDT rewrite this requirement to better align it with the question. Any training program should be reviewed prior to conducting the actual training; however, NERC should not require an annual review of all training programs if a program is not scheduled for delivery in that year. Requiring an annual review of all classes, regardless of anticipated delivery schedule is unduly burdensome and of no value to the industry. Lastly, this requirement fails to take into account the NERC CE Program requirements. Existing classes previously approved and delivered under the NERC CE Program must be reviewed and updated prior to delivery. The process for ensuring that this happens is auditable under the NERC CE Program and should not be duplicated here.

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Will Franklin; Entergy (6)	yes	Obviously the training material should be current. However a particular training module need not be updated until is being prepared for presentation. Additionally, corrections should be allowed to occur during training sessions since things can change quickly and not allow the training materials to be updated (e.g. setpoints, procedure steps, new equipment).
		On a similar topic, the NERC Operator exam process should be held to maintaing tests current under this philosophy (or not including/grading questions on information that has changed during the testing cycle). We have had to train operators on old/outdated information just for testing purposes. This is not productive.

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

SRP (1)	yes	It is a worthwhile target. I would hope that some provision for edits or correction notes during a class could be allowed. I would hate to see this requirement prevent the delivery of needed training if resources are constrained, which can happen with any size training department.

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.

Michael Scott; APS (1,5)	yes	Latitude for making approved pen-and-ink revisions to curriculum should be allowed, enabling "the show to go on", without a slow word processing and approval cycle. Let's stay nimble.

Response: Based on stakeholder feedback, this requirement, R10, has been removed from the

Commenter		Comment
SPP OTWG (1,2)	yes	Yes, this is good in theory, but it should be a "guide" not the standard.
		This would be very difficult to put into practice. You can still deliver the training and point out updates rather than delaying necessary training.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
John Kerr; GRDA	yes	Once again, this should be a guide and not a standard.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Jim Gunnell; SPP (2)	yes	This seems to be more of a recommendation than a rule. I would be interested in seeing a plan to enforce this requirement. If it's not enforceable, the level of accountability diminishes.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
CJ Ingersoll; CECD (3)	yes	This answer is applicable to a general operator training program, not necessarily any potential training matierial such as for new-hires.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
NPCC CP9 (1, 2)	Yes/no	NPCC Participating members expressed concern on how the phrase "accurately reflects" can be quantified and measured and requests clarification. If this is not practical then it should be removed as a Requirement.
Response: Based on stakeholder feedback, this requirement has been removed from the standard.		
Ron Falsetti; IESO (2)	Yes/no	Yes, but it's too fine a requirement and appears micro-managing. It is also covered by the annual training plan activities. We suggest that this requirement be combined with other annual review requirements or be removed.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Gordon Rawlings; BCTC (1)	yes	This requirement does not specifically say the words "training materials" and it should say this. The measure says "training materials".
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Brian Thumm; ITC (1)	yes	Information provided to trainees should accurately reflect the current operating environment, so if that requires updating the training materials, then yes, updating training materials as needed is necessary. That's not how the standard is written, though.
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the		

Commenter		Comment
standard.		
Brian Tuck; BPA (1)	yes	While it is good practice it does not belong in the standard. See response to Q19
Response: Based on stakeholder feedback, this requirement, R10, has been removed from the standard.		
Dale Wadding; Dairyland Power Cooperative (5)	yes	
Edward J. Carmen; Baltimore Gas & Electric (1)	yes	
Santee Cooper (G2)	yes	
FRCC SO Subcommittee (1,2,5)	yes	
William J. Smith; Allegheny Power (1)	yes	
TVA (1)	yes	
Michael Gammon; KCP&L (1)	yes	
FPL (1,3,5)	yes	
MRO (1,2)	yes	
WECC RCCWG (1,2)	yes	
Richard Krajewski; Public Service Co of NM (1)	yes	
WECC OTS (1,2)	yes	
Southern Co (1,3,5,6)	yes	
Pepco Holdings (1)	yes	
James Hinson; ERCOT (2)	yes	
Roger McBeth; Northeast Utilities (1)	yes	
Allan George; Sunflower (1)	yes	
FirstEnergy (1,3,5,6)	yes	

11. **Do you agree with the Violation Risk Factors assigned to each requirement in the proposed standard? If no, please identify which requirement you feel should have a different risk factor, and identify why.**

Summary:

The comments range from identifying a lack of understanding of what a Violation Risk Factor (VRF) is to giving recommendations on the factors for each requirement. Several commenters disagreed that any of requirements should have a High risk factor. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, and R7, R9, and R105) or changed the risk factor from High to Medium (R1 and R6R2). In the revised standard, none of the requirements are assigned a High VRF. In addition to these changes, the SPTSDT has also reviewed the VRF and revised the R4 VSF from Medium to Lower,

Commenter		Comment
Michael Clime; Ameren	no	Don't even need R10.
Response: The SPTSDT has removed ~~this requirement~~R10.		
Richard Appel; Sunflower Electric Power Co (1,3,5)	no	I didn't see where the factors are explained.So must disagree.
Response: All standards are required to have Violation Risk Factors as part of the Standards process. Reliability Standards Development Procedure manual explains the definitions of these values.		
Michael Scott; APS (1,5)	no	I don't understand how the value of these Factors is calculated, so I can't agree.
Response: All standards are required to have Violation Risk Factors as part of the Standards process. Reliability Standards Development Procedure manual explains the definitions of these values.		
Matthew Santos; SDE&G	no	I do not see how this applies, need more Info on how you came up with this Violation Risk Factor?
Response: All standards are required to have Violation Risk Factors as part of the Standards process. Reliability Standards Development Procedure manual explains the definitions of these values. The SPTSDT evaluated all requirements relative to the risk factor guides ~~and applied~~. Based on stakeholder feedback, ~~we~~ the SPTSDT revised the risk factors accordingly.		
TVA (1)	no	Was the term "Violation Risk Factor" defined ? What criteria and methods were used to determine Violation Risk Factor levels?
		A "High" on any of the requirements seems a bit extreme. If High is used a justification should be providedl.
Response: All standards are required to have Violation Risk Factors as part of the Standards process. Reliability Standards Development Procedure manual explains the definitions of the risk factors. Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk.		
Mark Bennett; Gainesville Regional Utilities (5)	no	Again, depending on the size and configuration of the entities generation/transmission system depend on whether the risk factors are assigned at all.
Response: Per the NERC Standards Development process, all standards are required to have Violation Risk Factors ~~as part of the Standards process~~.		
ISO/RTO Council (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.		
Improvements in industry training are warranted based on findings from the '03 Blackout Report and		

Commenter		Comment
subsequent determination from FERC (Order 693). Developing and maintaining training for system operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
PJM (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
Kathleen Goodman; ISO-NE (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
Santee Cooper (G2)	no	It is impractical to evaluate the risk factors until we have a clear understanding of the Requirements in this standard.
Response: The SPTSDT realizes that VRFs may change if any requirements are modified. The SPTSDT has reviewed all assigned VRFs for the draft two of this standard.		
Pepco Holdings (1)	no	The Risk Factors are not consistent with the definitions of the Violation Risk Factors in the Reliability Standards Development Procedure adopted August 2, 2006. We need to be careful not to confuse importance with risk. Nothing in a training standard could rise to the level of a High Risk Factor, that quote -is, one 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 (b) is 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. -unquote. Some of the training requirements may meet the definition for Medium Risk Factor, while most would result in a Lower Risk Factor.
Response: Based on stakeholder comments the SPTSDT has changed all high risk factors to medium or low risk. Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of violation risk factor were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.		
WECC OTS (1,2)	no	OTS notes NERC documents on Violation Risk Factors state, "These reliability-related risks are proposed for use when determining a penalty or sanction for a violation of

Commenter		Comment
		that requirement." Thus the purpose of the risk factors is for use when determining a penalty or sanction. Also from NERC documents, the risk factors are intended to represent the following in the operating timeframe:
		High = 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;
		Medium = 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;
		Lower = 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;
		With the understanding that Violation Risk Factors are not to rank the importance of a requirement to the industry but rather as an aggravating factor in determining penalties and sanctions, OTS does not support the Violation Risk Factors as listed in the draft Standard. A review of the Measures in the Standard indicate all Requirements are essentially administrative in terms of providing documentation the Requirment has been met. A lack of documentation does not necessarily mean the training or other requirement did not occur. OTS recommends all Violation Risk Factors in this Standard be set at "Lower."

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium. or Low risk. Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of violation risk factor were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Commenter		Comment
Richard Krajewski; Public Service Co of NM (1)	no	With the understanding that Violation Risk Factors are not to rank the importance of a requirement to the industry but rather as an aggravating factor in determining penalties and sanctions, PNM does not support the Violation Risk Factors as listed in the draft Standard. A review of the Measures in the Standard indicate all Requirements are essentially administrative in terms of providing documentation the Requirment has been met. A lack of documentation does not necessarily mean the training or other requirement did not occur. PNM recommends all Violation Risk Factors in this Standard be set at "Lower."

Response: Based on stakeholder comments the SPTSDT has changed all high risk factors to medium or low risk. Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of violation risk factor were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Commenter		Comment
SPP OTWG (1,2)	no	None of the Violation Risk Factors should not be rated as "high". R1, R3, R5, & R6 are all marked as "high". They should be dropped to a violation risk of "medium". R8 is "medium" but should be dropped to "low" because it is just

Commenter		Comment
		record keeping. R9 should drop from "medium" to "low".

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, ~~and~~ R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2~~6~~). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~As requested R9 has been changed from a Medium risk to a Low risk.~~

Commenter		Comment
MRO (1,2)	no	The MRO recommends that the SDT review the VRF associated with the following requirements: R1, R3, R5, R6, R8, and R9; with respect to the fact that each of the requirements is calling for an administrative action to be taken which does not directly meet the definition of High Risk.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced where appropriate.~~

Commenter		Comment
MISO (1,6)	no	We agree training is very important. However, we cannot identify any of the items in this standard should be classified above a lower risk. It's the direct actions of the operators that can put the interconnection at risk. Missing an item (or varying) in the design of a training module does not put the Interconnection at risk of cascading.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium ~~or Low~~ risk factors. Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of violation risk factor were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced where appropriate.

Commenter		Comment
FPL (1,3,5)	no	All the risk factors associated with the training standards should be "Lower" risk factors. These training activities will be occuring outside of the "real-time" operating arena and therefore violations of these requirements cannot in and of themselves cause impacts as defined by "High" and "Medium" risk factors. An entity would be required to violate several core operating requirements prior to the violation of a training requirement having any material impact on a system. At that, the linkage of an event to a training activity would be extremely subjective.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium ~~or Low~~ risk factors. Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Commenter		Comment
Hydro One Networks (1)	no	The Requirements assigned High Risk Factor should be Medium. According to the definitions of Risk Factors, Training itself (or lack of it) will not directly contribute to

Commenter		Comment
		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. The high fisk factor is in the requirements on credentials of operators which is dealt with in another standard.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk factor. Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Commenter		Comment
William J. Smith; Allegheny Power (1)	no	Requirement R1 for a Job Task Analysis would certainly be very important in ensuring that a training program has addressed every required subject. However, to say that it is a High risk factor implies that it is critical to system reliability. There are probably many company training programs preparing highly qualified operators that support system reliability that do not have a Job Task Analysis completed to the detail specified. Given this situation, a lower risk factor may be more appropriate.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk factor. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Commenter		Comment
Howard Rulf; WeEnergies (3,4,5)	no	All requirements except R6 (and its sub requirements) are administrative. None of the requirements put the BES one event away from a cascading failure.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced where appropriate.

Commenter		Comment
Gerald LaRose; NYPA (1)	no	In my opinion, only R6, the implementaton of a System Operator training program, merits a "High" VRF as a Requirement that, if violated, could… place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures". The remaining Requirements with a proposed "High" VFR are contributory in nature and are more appropriate as "Medium".

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and

Commenter		Comment
Ron Falsetti; IESO (2)	no	A well-structured training program is an important component to ensure that the concerned operating entities bring their system operation personnel to the competency needed to meet the entities' certification requirements and to assure operating reliability. However, actions taken by the operators in accordance with NERC standards have a direct impact on system reliability, not the training program itself. There are a number of requirements in this standard that are rated High and Medium, which we feel should at best be rated Medium and Lower, respectively, as they have a much more remote, secondary impact than actual operation. For comparison, for example, mitigating limit violation is assigned a High level; maintaining generation-load-interchange balance is assigned a Medium level. These requirements have a more direct impact on ensuring system reliability and controlling system conditions than developing and delivering the training program.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Will Franklin; Entergy (6)	no	This standard is administrative. Nothing in this standard affects reliability in the first degree. Thus, most if not all items should be rated as "lower".

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. The SPTSDT agrees that some of the standard requirements are administrative. Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk.. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced where appropriate.

John Kerr; GRDA	no	The risk for a violation should be no more than medium to low. The levels may need to be reconsidered.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the

Commenter		Comment
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Ron Gunderson; NPPD (1)	no	We agree training is very important. However, we cannot identify any of the items in this standard should be classified above a lower risk. It's the direct actions of the operators that can put the interconnection at risk. Missing an item (or varying) in the design of a training module does not put the Interconnection at risk of cascading.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced ,where appropriate.Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Commenter		Comment
Tim Hattaway; Alabama Electric Coop (5)	no	R1 should be Med or Low

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.

Commenter		Comment
FRCC SO Subcommittee (1,2,5)	no	All the risk factors associated with the training standards should be "Lower" risk factors. These training activities will be occuring outside of the "real-time" operating arena and therefore violations of these requirements cannot in and of themselves cause impacts as defined by "High" and "Medium" risk factors. An entity would be required to violate several core operating requirements prior to the violation of a training requirement having any material impact on a system. At that, the linkage of an event to a training activity would be extremely subjective.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major

Commenter		Comment
Robert Coish; MEHB (1, 3, 5, 6)	no	We agree training is very important. However, we cannot identify any of the items in this standard should be classified above a lower risk. It's the direct actions of the operators that can put the interconnection at risk. Missing an item (or varying) in the design of a training module does not put the Interconnection at risk of cascading.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~

Commenter		Comment
Duke Energy (G1) (1)	no	Training is obviously very important. However, none of the requirements in this standard should be classified above a lower risk. Direct actions of operators can put the interconnection at risk. Missing an item (or varying) in the design of a training module does not directly put the Interconnection at risk of cascading. We must differentiate between risk and importance. Deviation from a template training design does not put the Interconnections at risk of cascading. The standard as a whole should be evaluated at a lower risk.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~

Commenter		Comment
Marion Lucas; Alcoa Power Generating, Inc (1)	no	See comment 1. High and Medium risk factors assigned to listing of job tasks/documentation/ or review is extreme. High and medium risk factors should be equated with critical or significant impact on the Bulk Power System.
		As in above coments, the administrative functions that should NOT be included in the Standard (such as R1 - JTA) would not then be a violation consideration.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the

Commenter		Comment
CJ Ingersoll; CECD (3)	no	The Risk Factors associated with documentation, i.e. JTA, Annual Training Plan, Qualification Verification, should be assigned a Low state. The Risk Factor associated with actual training activity should be assigned a Medium Risk Factor. The items CECD suggests are Low Risk Factors should be assigned that specific priority due to the fact that the items described above, are administrative, and do not directly cause or contribute to instability, separation or cascading events (emphasis on "directly").
Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.		
Ed Davis; Entergy Services (1)	no	All of the Requirements in this draft standard should have a Violation Risk Factor of Low. No Requirement in any training standard should have a Violation Risk Factor above Low.
		A VRF of High applies to requirements that - 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. Violation of a training requirement does not meet this criteria for High.
		A VRF of Medium applies to requirements that - 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. Violation of a training requirement does not meet this criteria for MEDUIM.
Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard		

Commenter		Comment
~~and reduced, where appropriate.~~		
John Bussman: AECI (1,5,6)	no	Don't agree with R1
Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~		
SCE&G ERO WG (1, 3, 5)	no	We do not believe the risk factor of "High" for R5 is appropriate due to the fact that quality training can be provided by a trainer on the material and subject mater experts to address questions or concerns. This should be ranked as "Medium."
Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~		
Jason Shaver; ATC (1)	no	ATC believes that only Requirement 6.5.1 should be given a High Violation Risk Factor. All other requirements should be either medium or lower.
		R1 lower
		ATC suggests that R2 and R3 be deleted.
		R4 lower
		ATC suggest that R5 be deleted
		R6 medium
		R6.5.1 High
		R6.5.2 should be deleted
		R7 should be deleted
		R8 lower
		R9 lower
		R10 medium
Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.Based on stakeholder comments the SPTSDT has changed		

Commenter		Comment
~~all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~		

Michael Gammon; KCP&L (1)	no	**Standard** **Comments**
		 R1: JTA High Medium
		 R2: New hire requirements
		                       Medium High
		 R3: Incumbent training needs
		                High High
		 R4: Training plans
		                       Medium Medium
		 R5: Trainer competency
		                High Medium
		 R6: Training implementation
		                High High
		 R7: Training documentation
		                Low Low
		 R8: Training tracking
		                       Medium Low
		 R9: Training program evaluation
		                       Medium Low
		 R10: Training program maintenance
		                       Medium Medium

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~		
Jim Sorrels; AEP (1)	no	No. R1 should be rated as Lower Risk. It is not the lack of documenting job task analysis that would place the system at risk, it is the quality of the performance of those tasks. While, a job task analysis may be important to developing a good training plan, it does not meet the requirements of the High Risk definition for NERC Violation Risk Factors. R2 should be rated Lower Risk. Newly hired and entry-level operators should not be operating the system unsupervised until they are qualified. Nonperformance of R2 will not directly impact the reliability of the system, but rather would be an indirect cause over time. R2 does not meet the VRF definition of High Risk. We concur with R3 being rated High Risk, as R3 relates to assessing successful or unsuccessful performance of reliability tasks which directly effects reliability of the system. R4 should be rated Lower Risk as having a documented annual training plan is administrative in nature and lack of

Commenter		Comment
		the documentation (the Plan) does not in itself mean the required and proper training has not and does not occur.
		R5 in its present state should only be a guideline thus does not need a VRF. Conceptually, the qualification of the trainer would be Lower Risk as it is not the trainer that performs the actual reliability tasks. That is not to say having qualified trainers is not important.
		R6 should be rated Medium Risk. While proper implementation of the Training Plan is important, it does not directly lead to unreliable operation of the system, but rather is an indirect cause. Thus, it does not meet the NERC VRF definition of High Risk.
		We concur with R7 being rated a Lower Risk as it pertains to documentation which is administrative in nature.
		R8 should be rated Lower Risk, as this is an administrative function. Nonperformance to R8 does not directly affect reliability, but could be an indirect cause.
		R9 should be rated Lower Risk. While this an important administrative task, it by itself would not be a direct cause of unreliable operation.
		R10 in its present form should not be a requirement, thus should not have a rated risk factor. How does R10 mesh with the concept of using a "generic" simulator for some drills and exercises as asked in question #7, when R10 states the training program must "reflect the current operating environment"? A generic simulator may be on a pseudo system which does not reflect any entity's current operating environment. This is just an example of why the present wording of R10 is inadequate.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~

Commenter		Comment
Southern Co (1,3,5,6)	no	Under Requirement 1, one would not expect an imminent cascading outage to occur due to a job task analysis (JTA) not being performed. Not having a list of company-specific reliability-related tasks for a system operator is a problem, but the system operator could have 30 years experience and it's the experience which prevents cascading outages and not specifically the JTA. Recommend Medium risk factor.
		Under Requirement 3, not having a training needs assessment may not be a wise action on the part of a RC, BA, or TOP, but would not conducting a training needs assessment directly lead to cascading outages if the assessment did not exist? Recommend Medium risk factor.
		Under Requirement 5, if the system operator trainer is very

Commenter		Comment
		experienced with their duties, how will not having a certain level of competency directly result in cascading outages, i.e, high risk factor rating. What is NERC's acceptable level of competency-NERC certified, Master's Degree, 10 years as an instructor? Recommend Medium risk factor.
		Under Requirement 6, same comments as above. Recommend Medium risk factor.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~

~~Requirement 5 has been removed from the standard.~~

Commenter		Comment
NPCC CP9 (1, 2)	Yes/no	A violation risk factor of High means a violation has the potential to directly cause or contribute to bulk power system instability, separation, or a cascading sequence of failures, or did or could have placed the bulk power system at an unacceptable risk of instability, separation or cascading failure.
		R1. No. A lack of conducting a formal job task analysis is not a high risk factor to the BPS. It should be Medium
		R4. No. This should be "low." This is purely administrative.
		R8. No. It should be Lower and mainly administrative.
		R9. No. It is Lower and administrative.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~

Commenter		Comment
Gordon Rawlings; BCTC (1)	no	BCTC notes NERC documents on Violation Risk Factors state, "These reliability-related risks are proposed for use when determining a penalty or sanction for a violation of that requirement." Thus the purpose of the risk factors is for use when determining a penalty or sanction. Also from NERC documents, the risk factors are intended to represent the following in the operating timeframe:
		High = 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

Commenter		Comment
		electric system at an unacceptable risk of instability, separation, or cascading failures;
		Medium = 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;
		Lower = 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;
		With the understanding that Violation Risk Factors are not to rank the importance of a requirement to the industry but rather as an aggragating factor in determining penalties and sanctions, BCTC offers the following comments on the Violation Risk Factors in the draft Standard:
		R1 is listed as High and while it is clearly important to reliable operations, R1 does not fit the definition of High and should be changed to Medium or LowER.
		R2 is listed as Medium and BCTC agrees or reduce it to LowER.
		R3 is listed as High and while it is important to developing a training program, R3 does not fit the definition of High and should be changed to Medium or LowER.
		R4 is listed as Medium and BCTC agrees or reduce it to LowER.
		R5 is listed as High and while it is important to developing a training program, R5 does not fit the definition of High and should be changed to Medium or LowER.
		R6 is listed as High and while it is important to developing a training program, R6 does not fit the definition of High and should be changed to Medium or LowER.
		R6.5.2 is listed as Medium and BCTC agrees but does not understand why this sub-requirement receives an independent violation risk factor. Is it possible this is meant to apply to R6.5 and both of its sub-requirements R6.5.1 and R6.5.2? If so, since BCTC recommends R6 (all of it) be changed to a Medium or reduce it to LowER it would make this sub-requirement designation unnecessary.
		R7 is listed as LowER and BCTC agrees.
		R8 is listed as Medium and BCTC agrees or reduce it to LowER.
		R9 is listed as Medium and BCTC agrees or reduce it to LowER.
		R10 is listed as Medium and BCTC agrees or reduce it to LowER.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were

Commenter		Comment
applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~		
Allan George; Sunflower (1)	no	What is definition of Risk Factor
Response: Please see the Standards Drafting Process manual for definitions.		
Dan Kay; South Mississippi EPA (4)	no	This should be the left to the employer, not required by NERC in a standard.
Response: All standards are required to have Violation Risk Factors as part of the Standards process. Reliability Standards Development Procedure manual explains the definitions of the risk factors. Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium.~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~		
Alan Adamson; NYSRC (2)	Yes/no	A violation risk factor of High means a violation has the potential to directly cause or contribute to bulk power system instability, separation, or a cascading sequence of failures, or did or could have placed the bulk power system at an unacceptable risk of instability, separation or cascading failure.

R1. No. A lack of a job task analysis is not a high risk factor to the BPS. It should be Medium

R2. Yes.

R3. Yes

R4. No. This should be low. This is purely administrative.

R5. Yes. Lack of competency in developing the trainig program could have unacceptable ramifications on the training.

R6. Yes

R7. Yes

R8. No. It is Lower since it is purely administrative.

R9. No. It is Lower and administrative.

R 10. Yes. |
| **Response:** Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~ | | |

Commenter		Comment
Allen Klassen; Westar (1)	no	Based on the NERC definitions of the Risk Factors, it is hard for me to agree that ANY of this Standard qualifies as High (causing instability, cascading failures, etc) even giving them a risk factor of Medium may be a "stretch". I suggest R1, R3, R5, & R6 be changed from High to Medium, and R8 be changed to LowER (as is record keeping and seem to match the definition of ". administrative in nature .")

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~

Brian Thumm; ITC (1)	no	Although training is a very important component of a reliable transmission network, the performance of job task analyses, conductance of training needs assessments, and verification of trainer qualifications does not rise to the level of "high" risk. All of these high-risk activities are more appropriately classified as medium-risk.

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~This requirement has been removed..~~

Brian Tuck; BPA (1)	no	While training has been considered a contributing factor in many system disturbances, it does not follow that the essentially administrative tasks performed in the process of developing, implementing, and record-keeping of training activities should be assigned Violation Risk Factors of Medium or High.
		Incomplete training documentation does not mean that training provided by an entity has been ineffective or non-existent. Poor documentation practices do not "directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures", stated in the NERC definition of High Risk.
		BPA notes that a Violation Risk Factor of Lower does not imply that it is acceptable to ignore or poorly perform the requirement.
		BPA suggests the following Violation Risk Factors for the requirements described in the proposed standard:
		R1 - Prepare and update JTA for each position.— LowER
		R2 - Perform training needs assessment for each new hire. Medium
		R3 - Perform annual training needs assessment for each

Commenter		Comment
		incumbent. Medium
		R4 - Develop annual training plan for each system operator. LowER
		R5 - Training delivery by qualified instructors. Medium
		R6 - Training provided meets Knowledge and Skill requirements of position. Medium
		R7 - Documentation Guidelines for training materials. LowER
		R8 - Documentation Guidelines for personnel training records. LowER
		R9 - Annual program review to ensure effectiveness. LowER
		R10 - Use of updated instructional materials. LowER

Response: Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT agrees and has either removed the requirement (R3, R4, R5, R6, R7, R8, R9, and R10) or changed the risk factor from High to Medium (R1 and R2). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has re-evaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate. ~~Based on stakeholder comments the SPTSDT has changed all High risk factors to Medium or Low risk. The SPTSDT has either removed the requirement (R3 and R5) or changed the risk factor from High to Medium (R1 and R6). Training has been cited as a major contributing factor to many large scale events and blackouts and hence the levels of VRF were applied with this in mind. The SPTSDT has reevaluated all assigned VRFs for this draft posting of the standard and reduced, where appropriate.~~

Commenter		Comment
Roger McBeth; Northeast Utilities (1)	yes	I agree with the High Risk Factor for Requirement 1 but not the level of detail specified for the JTA. It is important to have a company specific task list and a task to training matrix that identifies the following:
		Training Frequency = Initial Training, Continuing Training or Both
		Training Environment = Classroom, Simulator, OJT, etc.
		Training Activity Id which identifies the training activity with the objectives/content that addresses the knowledge/skills associated with the task.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Commenter		Comment
Jim Gunnell; SPP (2)	yes	
SRP (1)	yes	
James Hinson; ERCOT (2)	yes	
WECC RCCWG (1,2)	yes	
FirstEnergy (1,3,5,6)	yes	

12. Do you agree with the Measures in the proposed standard?

Summary:

Most commenters did not agree with the Measures in the proposed standard. Based on industry feedback on the SPTSDT has significantly revised the measures, as follows:

- **M1 has been modified ~~such that the need for a JTA has been removed and the prescriptive elements of the measure have been removed.~~ to reflect the revised R1 focusing on the outcomes of the SAT process.**

- **M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator.**

- **M4 ~~has been modified such that the measure requires evidence that the training program was developed with learning objectives and the results of the training analysis and the training needs assessment.~~ and the associated requirement, R4, have been removed from the revised standard.**

- **M5 and the associated requirement, R5, have been removed from the revised standard.**

- **M6 and M7 and the associated requirement, R6, have been removed from the revised standard. ~~modified such that the levels of training (entry-level, incumbent, refresher, and continuing for new tools or tasks) are removed. Note that the CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~**

- **M8 and the associated requirement, R6, have been removed from the revised standard. ~~has been revised, consistent with the associated requirement, such that measure requires evidence that the training program has been implemented based on the needs assessment and the annual training plan. The levels of training (entry-level, incumbent, refresher, and continuing training for new tools and tasks) have been removed from the requirement and measure.~~**

- **M9 and the associated requirement, R7, have been removed from the revised standard.**

- **M10 and the associated requirement, R8, have been removed in the revised standard.**

- **M11 and the associated requirement R9, have been removed from the revised standard. ~~has been modified such that the measure requires evidence that the latest evaluation of the training delivered meets the performance criteria for reliability-related tasks, without prescribing the information sources.~~**

- **M12 and the associated requirement, R10, have been removed in the revised standard.**

Commenter		Comment
Richard Appel; Sunflower Electric Power Co (1,3,5)	no	I don't think this standard is needed at all. Its just overkill. PER-002 covers training.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
Marion Lucas; Alcoa Power Generating, Inc (1)	no	This is all a duplication of the much simpler and less intrusive PER-002 and PER-003.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.~~.~~		
Dan Kay; South Mississippi EPA (4)	no	There is no need for this standard. The NERC System Operator Certification Program with the required continiuing education for re-certification that is allready in place is more than sufficient to ensure an adequate level of training is accomplished at the NERC level. Each individual employer must decide the level of training it requires for operation of it's own system.

Commenter		Comment
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The certification program is outside the scope of this standard.		
Kathleen Goodman; ISO-NE (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
PJM (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
ISO/RTO Council (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
Ed Davis; Entergy Services (1)	no	Please revise the Measures to make them compatible with the revised requirements.
Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements.		
Santee Cooper (G2)	no	It is impractical to evaluate the measurements until we have a clear understanding of the Requirements in this standard.
Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements.		
SPP OTWG (1,2)	no	Since there are areas within the standard that we disagree with, it is impossible to agree with the Measures in the proposed standard.
Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements		
FPL (1,3,5) FRCC SO Subcommittee (1,2,5)	no	Measures should be modified in accordance with our comments on the Requirements.
Response: The Measures have been re-evaluated and changed to be consistent with the revised		

Commenter		Comment
Pepco Holdings (1)	no	The Measures should be changed to conform to the previous comments. Specifically M 3, M 4, M 8, M10, and M 11

Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements. Specifically the following changes were made:

M1 has been modified to reflect the revised R1 focusing on the outcomes of the SAT process.

M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator.

M4 and the associated requirement, R4, have been removed from the revised standard.

M5 and the associated requirement, R5, have been removed from the revised standard.

M6 and M7 and the associated requirement, R6, have been removed from the revised standard.

M8 and the associated requirement, R6, have been removed from the revised standard.

M9 and the associated requirement, R7, have been removed from the revised standard.

M10 and the associated requirement, R8, have been removed in the revised standard.

M11 and the associated requirement R9, have been removed from the revised standard.

M12 and the associated requirement, R10, have been removed in the revised standard. ~~M2 and M3 have been combined into a measure that requires evidence of the latest assessment for each position, not for each System Operator.~~

~~M4 has been modified such that the measure requires evidence that the training program was developed with learning objectives and the results of the training analysis and the training needs assessment.~~

~~M8 has been revised, consistent with the associated requirement, such that measure requires evidence that the training program has been implemented based on the needs assessment and the annual training plan. The levels of training (entry-level, incumbent, refresher, and continuing training for new tools and tasks) have been removed from the requirement and measure.~~

~~M10 has been removed since the associated requirement has been removed in the revised standard.~~

~~M11 has been modified such that the measure requires evidence that the latest evaluation of the training delivered meets the performance criteria for reliability-related tasks, without prescribing the information sources.~~

Commenter		Comment
Richard Krajewski; Public Service Co of NM (1)	yes	PNM notes that changes to requirements will create appropriate changes to measures.

Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements

Commenter		Comment
Allen Klassen; Westar (1)	no	Can't agree with all measures without agreeing to all requirements, however, they match the requirements well in general.

Response: The Measures have been re-evaluated and changed to be consistent with the revised requirements.

Commenter		Comment
Brian Tuck; BPA (1)	no	BPA agrees the measures are worded appropriately for the Requirements as written. However, BPA and others are requesting changes to the Requirements which will require corresponding changes in many of the Measures.

Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements.

Commenter		Comment
Ron Falsetti; IESO (2)	no	We do not agree with the requirements at this time so we are unable to agree with the measures, at least not until the requirements are revised and the measures adjusted accordingly. Please also see comments/suggestions in Q19.

Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements.

The SPTSDT agrees that the element identified is important and are encompassed in the revised standard. The SPTSDT has significantly revised the standard based on industry feedback. The standards addresses the core SAT phases.

The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.

The SPTSDT has combined R2 and R3 and removed R4, R5, R6, R7, R8, R9, and R10 from the revised standard.~~The SPTSDT agrees that the elements identified are important and are encompassed in the revised standard. The SPTSDT has significantly revised the standard based on industry feedback. The standards addresses the core SAT phases.~~

~~The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.~~

~~The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

~~The SPTSDT has removed Requirement 7 from the revised standard.~~

~~The SPTSDT has removed Requirement 5 and Requirement 8.~~

| NPCC CP9 (1, 2) | no | NPCC Participating members have expressed some disagreement with the Requirements as written so the measures are in question as well. |

Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements.

| MISO (1,6)

Ron Gunderson; NPPD (1)

Robert Coish; MEHB (1, 3, 5, 6) | no | The measures are too complex. There are already requirements that say what training needs to be provided. Over-specifiying how the training is delivered and the detailed design of the program seems to go too far. There are probably four core requirements in the standard. The measures and compliance monitoring should be simplified (some overall score for the requirements that are met). |

Response: Based on industry feedback, the Requirements and the Measures have been simplified.

The Requirements have been changed such that how the training is designed, developed, and delivered are not prescribed. The standards now addresses the core SAT phases.

| CJ Ingersoll; CECD (3) | no | The Annual Training plan and training records should be the only items required for inspection based on the |

Commenter		Comment
		answers provided on this comment form.

Commenter		Comment
SCE&G ERO WG (1, 3, 5)	no	A list of reliability related tasks and performance expectations should be agreed upon then measures can be developed. The definition of "reliability related task" and agreement of the industry of minimum requirements as associated with these task as it applies to R1.1 through R1.7 should be provided. Also the word "mastery" should be revised to "proficient."

Response: The Measures have been re-evaluated and changed to be consistent with the revised Requirements.

In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific utilityentity may perform. Therefore you, each entity must complete a company-specific analysis to determine the required training.

The SPTSDT has removed the word mastery from the requirement and replaced with acceptable.

Commenter		Comment
TVA (1)	no	The use of the word "each" in M2 , M3 and M6 made us wonder if it pertained to a person or function. We feel that it would be too administratively cumbersome to be at the individual operator level.

Response: The SPTSDT has reviewed the requirements and modified them such that the requirements apply to position, not individual System Operators.

M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator.

M6 and M7 and the associated requirement, R6, have been removed from the revised standard.The SPTSDT has also clarified that the annual training plans referenced in the Requirement and Measure are on a position basis.

Commenter		Comment
Mark Bennett; Gainesville Regional Utilities (5)	no	I believe that if a review of a training program takes place, the only thing needed is student name/ credentials/ outline of program, where they are in the program.

Response: NERC Standards process requires measures for all Requirements in a standard

Commenter		Comment
WECC RCCWG (1,2)	no	Any measure that only requires providing of documentation with no further regard to accuracy or effectiveness is simply a requirement to produce, maintain and update paperwork. This is further stress on entities resources and manpower for nothing more than a cursory look by a Compliance Review team. Either make the measurement have more "teeth" or don't include it at all.

Response: Evidence of compliance for each Requirement is a NERC requirement. The SPTSDT is sensitive to the burden this places on the industry as a result of the approval of this standard however there is an urgent priority placed on the industry to develop effective training programs that are consistent in measurability for audit purposes, as required by the ERO and FERC

Commenter		Comment
SRP (1)	no	Any of the Measures that only include showing documentation or a record without any regard to what

Commenter		Comment
		that documentation should include (e.g. qualification of training personnel) does not provide an objective and impartial measurement. Any measure that only requires providing of documentation with no further regard to accuracy or effectiveness is simply a requirement to produce, maintain and update paperwork. This is further stress on entities resources and manpower for nothing more than a cursory look by s Compliance Review team. Either make the measurement have more "teeth" or don't include it at all.

Response: Evidence of compliance for each requirement is a NERC requirement. The SPTSDT is sensitive to the burden this places on the industry as a result of the approval of this standard however there is an urgent priority placed on the industry to develop effective training programs that are consistent in measurability for audit purposes, as required by the ERO and FERC.

Commenter		Comment
Roger McBeth; Northeast Utilities (1)	no	Measurement M1 is focusing on the content of a JTA not the training material and program that addresses the company specific task list. Emphasis should be placed on the following not the overly prescriptive items of 1.1 thru 1.7
		It is important to have a company specific task list and a task to training matrix that identifies the following:
		Training Frequency = Initial Training, Continuing Training or Both
		Training Environment = Classroom, Simulator, OJT, etc.
		Training Activity Id which identifies the training activity with the objectives/content that addresses the knowledge/skills associated with the task.
		Measurement M2 if a position description with well defined hiring requirements for new operators and for M3/M7/M8 a generic incumbent system operator assessment of training needs is not adequate to meet these requirements then these requirements would be an overly burdensome administrative requirement on organizations training staffs.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. M1 has been modified to reflect the revised R1 focusing on the outcomes of the SAT process.

~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology. The associated Measure has also been modified and removed the prescriptive elements.~~

In response to your suggestion on the inclusion of the training matrix, based on stakeholder feedback this level of specificity and prescriptiveness would not be endorsed by the industry.

The Measures have been re-evaluated and changed to be consistent with the revised Requirements.

The SPTSDT does not understand the intent of the last comment.

Commenter		Comment
Michael Gammon; KCP&L (1)	no	Since commented on the R3 requirement, the proposed M3 no longer fits. I would propose the following language changes: **M3.** Each Reliability Coordinator, Balancing Authority and Transmission Operator shall have available for inspection, the results of its latest training needs analysis that identifies each

Commenter		Comment
		incumbent System Operator's training plan as specified in R3.

Response: M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator. M3 has been modified to be consistent with the revised R3, which is now position-specific, not operator-specific.

Commenter		Comment
Michael Clime; Ameren	no	M5 - What determines who is qualified? And what is the documentation that says that they are?

Response: M5 and the associated requirement, R5, have been removed from the revised standard. This Requirement has been removed from the revised standard.

Commenter		Comment
Southern Co (1,3,5,6)	no	Under Measurement 5, it says you must have documentation of the qualifications of the trainer, but Requirement 5 doesn't mention what would be an acceptable level of competency. Recommend allowing each Utility the ability to determine what is the acceptable level of competency.
		Measurement 1: Recommend that R1.3, R1.4, and R1.5 be removed.

Response: M5 and the associated requirement, R5, have been removed This Requirement has been removed from the revised standard.

Commenter		Comment
Brian Thumm; ITC (1)	no	Some of the measures do not accurately capture of the compliance elements of the requirements. For example, M5 requires that the RC/BA/TOp have available for inspection certain documentation of personnel qualifications, but the corresponding R5 does not require the RC/BA/TOp to assemble and retain such documentation. R5 merely requires that the employer verify qualifications of its employees, and such verification would not necessarily require the employer to copy and retain evidence of the qualifications. Much like an NERC audit, the RC/BA/TOp could require the employee to "have available for inspection" any necessary items to demonstrate their qualifications. Disconnects such as this between the Measures and Requirements should be corrected.
		Proposed wording for R5 is as follows:
		R5. Each RC, BA, and TOp shall maintain documentation which demonstrates that persons developing or delivering training have the following qualifications …

Response: Requirement 5 addressing trainer qualification has been removed from the revised standard.

Based on stakeholder feedback the requirements and the associated measures are not as prescriptive as they were in version 1 of the standard. in the revised standard.

Commenter		Comment
Howard Rulf; WeEnergies (3,4,5)	no	M9: R7.1 through R7.5 and R7.8 should be satisfied by supplying the NERC CE number for the class.

Response: The SPTSDT agrees that some elements of the CE program can be used to comply with this standard. Note that M9 and the associated requirement, R7, have been moved from the revised standard.

Commenter		Comment
Jason Shaver; ATC (1)	no	ATC disagrees with those measures that are tied to requirements that we believe should be deleted.
		Measure 12 requires updates to training programs even if that program is not scheduled for delivery in that training year. This measure should be rewritten to require that training programs only need to be reviewed prior to delivery and that the delivered program reflect current industry standards and topology.

Response: The Requirements and Measures have been re-evaluated and changed for this posting of the standard.

M12 and the associated requirement, R12, have been removed from the revised standard.

Commenter		Comment
Allan George; Sunflower (1)	no	only M1, M4, M6, M7, M11, M12 are needed

Response: ~~The SPTSDT has removed M3, M5, M9, M10, and M12.~~ M1 has been modified to reflect the revised R1 focusing on the outcomes of the SAT process.

M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator.

M4 and the associated requirement, R4, have been removed from the revised standard.

M5 and the associated requirement, R5, have been removed from the revised standard.

M6 and M7 and the associated requirement, R6, have been removed from the revised standard.

M8 and the associated requirement, R6, have been removed from the revised standard.

M9 and the associated requirement, R7, have been removed from the revised standard.

M10 and the associated requirement, R8, have been removed in the revised standard.

M11 and the associated requirement R9, have been removed from the revised standard.

M12 and the associated requirement, R10, have been removed in the revised standard.

The Requirements and Measures have been re-evaluated and changed for this posting of the standard.

Commenter		Comment
Michael Scott; APS (1,5)	no	Based on the simplifications recommended in my review of this standard, I suggest the following Measures:
		M1. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection, the results of its latest JTA as specified in R1.
		M2. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection, the assessment of new System Operator training needs and any resulting individualized training plans as specified in R2.
		M3. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection, the assessment of incumbent System Operator training needs and any resulting individualized training plans as specified in R3.
		M4. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection, the annual training plan for System Operators as specified in R4.
		M5. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection, documentation of personnel qualifications who developed or delivered System Operator training as

Commenter		Comment
		specified in R5.
		M6. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection, training records that document training activities as specified in R6.
		M7. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection, the results of its latest program evaluation as specified in R7.

Response: ~~The SPTSDT agrees with the simplifications that you have presented.~~ M1 has been modified to reflect the revised R1 focusing on the outcomes of the SAT process.

~~M1 has been modified such that the need for a JTA has been removed and the prescriptive elements of the measure have been removed.~~

M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator.

M4 and the associated requirement, R4, have been removed from the revised standard.

M5 and the associated requirement, R5, have been removed from the revised standard.

M6 and M7 and the associated requirement, R6, have been removed from the revised standard. ~~M2 and M3 have been combined into a measure that requires evidence of the latest assessment for each position, not for each System Operator.~~

~~M4 has been modified such that the measure requires evidence that the training program was developed with learning objectives and the results of the training analysis and the training needs assessment.~~

~~M5 and the associated requirement, R5, have been removed from the revised standard.~~

~~M6 and M7 and the associated requirement, R6, have been modified such that the levels of training (entry-level, incumbent, refresher, and continuing for new tools or tasks) are removed.~~

Commenter		Comment
Jim Sorrels; AEP (1)	no	No.
		As AEP does not agree with all the requirements in the proposed standard, we can't agree with all the measures in the proposed standard.
		M1 - Conceptually we agree, just need to make changes to R1.1 - R1.7 as previously commented.
		M2 - Shall have available for inspection the results of its latest training needs analysis for each entry-level System Operator job classification.
		M3 - Shall have available for inspection the results of its latest training needs analysis for each System Operator job classification.
		M4 - Agree.
		M5 - Disagree. M5 is not a measure and R5 in its present state is not measurable. By what criteria is each Region and each auditor going to use to determine if an entity's documentation of qualifications is satisfactory?
		M6 - Disagree. What is meant by training activities? Do you mean have available an entity's entry-level training plan? Or do you mean have available an entity's entry-level training material? Or do you mean something else?
		M7 - Conceptually agree. However, we desire to see the standard use terminology in a manner consistent with the NERC Continuing Education Program Administrative

Commenter		Comment
		Manual, which uses the term refresher training as a subset of continuing training.
		M8 - Consider combining M7 and M8. In essence, the measure is to provide training records.
		M9 - This measure would not be needed if R7 becomes a guide rather than a requirement of the standard as we suggest in our previous comments.
		M10 - Remove M10. R8 is not appropriate nor is M10 which is the measure for R8. This is getting too close to making public record an individual's job performance appraisal(s), which heretofore have been treated as confidential between an employer and the employee.
		M11 - Agree.
		M12 - Just because an entity provides it latest versions of its training program, that will not necessarily demonstrate that the information within the program accurately reflects the current operating environment as required in R10. As stated previously, R10 needs work.

Response: ~~The SPTSDT agrees with the simplifications that you have presented. M1 has been modified such that the need for a JTA has been removed and the prescriptive elements of the measure have been removed.~~

M1 has been modified to reflect the revised R1 focusing on the outcomes of the SAT process.

M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator.

M4 and the associated requirement, R4, have been removed from the revised standard.

M5 and the associated requirement, R5, have been removed from the revised standard.

M6 and M7 and the associated requirement, R6, have been removed from the revised standard.

M8 and the associated requirement, R6, have been removed from the revised standard.

M9 and the associated requirement, R7, have been removed from the revised standard.

M10 and the associated requirement, R8, have been removed in the revised standard.

M11 and the associated requirement R9, have been removed from the revised standard.

M12 and the associated requirement, R10, have been removed in the revised standard.~~M2 and M3 have been combined into a measure that requires evidence of the latest assessment for each position, not for each System Operator.~~

~~M4 has been modified such that the measure requires evidence that the training program was developed with learning objectives and the results of the training analysis and the training needs assessment.~~

~~M5 and the associated requirement, R5, have been removed from the revised standard.~~

~~M6 and M7 and the associated requirement, R6, have been modified such that the levels of training (entry-level, incumbent, refresher, and continuing for new tools or tasks) are removed. Note that the CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

~~M8 has been revised, consistent with the associated requirement, such that measure requires evidence that the training program has been implemented based on the needs assessment and the annual training plan. The levels of training (entry-level, incumbent, refresher, and continuing training for new tools and tasks) have been removed from the requirement and measure.~~

~~M9 and the associated requirement, R7, have been removed from the revised standard.~~

~~M10 and the associated requirement, R8, have been removed in the revised standard.~~

Commenter		Comment

Commenter		Comment
Matthew Santos; SDE&G	no	What if a company did not do a JTA? (M1). M2 & M3 are asking for to much, we can show you results of exams. I am not sure of what you mean mismatches on Actual performance and criteria for successful performance? Is this all done in training or real time?
		M5 - we should only have to show work history and training records of the trainer and maybe the pass/fail rate of those he trained. That might be hard to do if those he trained moved onto other jobs or companies.
		M6 - Only if that company brings folks in like that. Entry-level is lika a apprenticeship program to me. Clarify if my interpation is wrong.
		M9 - is telling me that I have to have this documentation in a certain form style as in R7. this seems to be over kill. It should be enough to show that training is being done successfully on what topics and dates it has been delivered.
		M10 - See question 1 and clarify.
		M11 - See Question 9
		M12 - See question 10 this would be very burdensome to do. The training materials are adjusted before and after delivery until they are going to be delivered again which maybe months to years. This is about taking time to update a course which may not be delivered until months to year or so and changes will have taken place which will cause more time to be used to update the material. In a perfect world this would be very desirable but in the real world it is not going to happen. Manpower, time and system priorites will override this function.

Response: M1 has been modified to reflect the revised R1 focusing on the outcomes of the SAT process.

M2 and M3 have been combined into one measure that requires evidence of the latest assessment for each position, not for each System Operator.

M4 and the associated requirement, R4, have been removed from the revised standard.

M5 and the associated requirement, R5, have been removed from the revised standard.

M6 and M7 and the associated requirement, R6, have been removed from the revised standard.

M8 and the associated requirement, R6, have been removed from the revised standard.

M9 and the associated requirement, R7, have been removed from the revised standard.

M10 and the associated requirement, R8, have been removed in the revised standard.

M11 and the associated requirement R9, have been removed from the revised standard.

M12 and the associated requirement, R10, have been removed in the revised standard. The SPTSDT agrees with the simplifications that you have presented. M1 has been modified such that the need for a JTA has been removed and the prescriptive elements of the measure have been removed.

M2 and M3 have been combined into a measure that requires evidence of the latest assessment for each position, not for each System Operator.

Commenter		Comment
M5 and the associated requirement, R5, have been removed from the revised standard. M6 and M7 and the associated requirement, R6, have been modified such that the levels of training (entry-level, incumbent, refresher, and continuing for new tools or tasks) are removed. M9 and the associated requirement, R7, have been removed from the revised standard. M10 and the associated requirement, R8, have been removed in the revised standard. M11 has been modified such that the measure requires evidence that the latest evaluation of the training delivered meets the performance criteria for reliability-related tasks, without prescribing the information sources. M12 and the associated requirement, R10, have been removed in the revised standard.		
John Kerr; GRDA	no	
Gordon Rawlings; BCTC (1)	Yes/no	BCTC agrees the measures are worded appropriately for the Requirements as written. BCTC and others will be requesting changes to the Requirements which will require corresponding changes in some wording of the Measures. We would expect the measures would change with any changes to the requirements that come from industry suggestions.
Response: The SPTSDT agrees and have re-evaluated/modified the Requirements and Measures.		
MRO (1,2)	yes	The MRO recommends that the SDT review M5 in the event R5 changes, in order for M5 to remain consistent with any changes made to R5.
Response: M5 and the associated requirement, R5, have been removed from the revised standard.		
Hydro One Networks (1)	Yes/no	Although agreeing with the need of Measures in general, there are some that may pose unnecessary documentation burden to entities. For example, M3 can be satisfied by use of an annual employee performance review without the need of creating an additional document to demonstrate compliance. Also, in M11, providing results of the annual review does not prove that an entity is modifying training as per their findings.
Response: M3 has been modified to reflect a needs analysis by position not individual. M11 and the associated requirement, R9, have been removed from the revised requirement. has been modified such that the measure requires evidence that the latest evaluation of the training delivered meets the performance criteria for reliability-related tasks, without prescribing the information sources.		
Alan Adamson; NYSRC (2)	Yes/no	Agree with 1, 2, 3, 5 and 11. Disagree with 4, 6-10 and 12 4-See comments on Q4 6-9-See comments on Q6 10-See comments on Q8 12-See comments on Q10 and Q19
Response: M1 has been modified to reflect the revised R1 focusing on the outcomes of the SAT process. M2 and M3 have been combined into one measure that requires evidence of the latest assessment for		

Commenter		Comment

each position, not for each System Operator.

M4 and the associated requirement, R4, have been removed from the revised standard.

M5 and the associated requirement, R5, have been removed from the revised standard.

M6 and M7 and the associated requirement, R6, have been removed from the revised standard.

M8 and the associated requirement, R6, have been removed from the revised standard.

M9 and the associated requirement, R7, have been removed from the revised standard.

M10 and the associated requirement, R8, have been removed in the revised standard.

M11 and the associated requirement R9, have been removed from the revised standard.

M12 and the associated requirement, R10, have been removed in the revised standard. ~~The SPTSDT agrees with the simplifications that you have presented. M1 has been modified such that the need for a JTA has been removed and the prescriptive elements of the measure have been removed.~~

~~M2 and M3 have been combined into a measure that requires evidence of the latest assessment for each position, not for each System Operator.~~

~~M4 has been modified such that the measure requires evidence that the training program was developed with learning objectives and the results of the training analysis and the training needs assessment.~~

~~M5 and the associated requirement, R5, have been removed from the revised standard.~~

~~M6 and M7 and the associated requirement, R6, have been modified such that the levels of training (entry-level, incumbent, refresher, and continuing for new tools or tasks) are removed. Note that the CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

~~M8 has been revised, consistent with the associated requirement, such that measure requires evidence that the training program has been implemented based on the needs assessment and the annual training plan. The levels of training (entry-level, incumbent, refresher, and continuing training for new tools and tasks) have been removed from the requirement and measure.~~

~~M9 and the associated requirement, R7, have been removed from the revised standard.~~

~~M10 and the associated requirement, R8, have been removed in the revised standard.~~

~~M11 has been modified such that the measure requires evidence that the latest evaluation of the training delivered meets the performance criteria for reliability-related tasks, without prescribing the information sources.~~

~~M12 and the associated requirement, R10, have been removed in the revised standard.~~

Commenter		Comment
WECC OTS (1,2)	Yes/no	OTS agrees the measures are worded appropriately for the Requirements as written. Of course OTS and others are requesting changes to the Requirements which will require corresponding changes in some wording of the Measures.

Response: The Requirements and Measures have been re-evaluated and changed for this posting of the standard.

Duke Energy (G1) (1)	yes	Yes, the measures, although complex and interdependent, match the requirements as drafted. However, most, if not all, of the requirements need work which, in turn, will cause the measures to be revised accordingly.

Response: The SPTSDT agrees. The Requirements and Measures have been re-evaluated and changed for this posting of the standard.

William J. Smith; Allegheny	yes	We agree with the Measures to the extent that they

Commenter		Comment
Power (1)		agree with our comments to the Requirements.
Response: The SPTSDT agrees. The Requirements and Measures have been re-evaluated and changed for this posting of the standard.		
Dale Wadding; Dairyland Power Cooperative (5)	yes	
Will Franklin; Entergy (6)	yes	
John Bussman:AECI (1,5,6)	yes	
Jim Gunnell; SPP (2)	yes	
Gerald LaRose; NYPA (1)	yes	
James Hinson; ERCOT (2)	yes	
FirstEnergy (1,3,5,6)	yes	

13. Do you agree with Compliance Monitoring section of the standard?

Commenter		Comment
Marion Lucas; Alcoa Power Generating, Inc (1)	no	See comments in 12.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard		
Kathleen Goodman; ISO-NE (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for system operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
PJM (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for system operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
ISO/RTO Council (2)	no	See response to question 19
Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost. The SPTSDT has significantly revised the standard based on industry feedback.		
Mark Bennett; Gainesville Regional Utilities (5)	no	I believe that entities need a training program, and must have one for compliance. I don't believe that all the requirements and measurements are necessary to have a comptent operator. This is mostly back office work for tracking purposes. Again PER 002 should suffice.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
Brian Tuck; BPA (1)	no	The RRO is identified as the Compliance Monitor for the Standard. The Compliance Monitoring Period and Reset section lists all the potential methods the RRO may use to monitor compliance. BPA recommends Self-certification, Periodic Audit (required 3-year compliance audit, not the readiness audit), and Triggered Investigations. The Data Retention requirements are more detailed than necessary and BPA recommends a simple requirement for all training documentation and records to be retained for three-years,

Commenter		Comment
		similar to the requirement of the NERC CE Program.
Response: The SPTSDT has removed the self-certification, spot check, periodic audit, and the triggered investigations statements in the Compliance Monitoring & Reset section. These requirements are included in the NERC Compliance Process. The SPTSDT agrees with your comment on data retention and simplified the Data Retention section such that the requirement for data retention is three years.		
WECC RCCWG (1,2)	no	I do not agree with the Triggered Investigations. There is no recourse provided for entities that are accused of non compliance. There is no appeal process. Who is allowed to call for a Triggered Investigation? This section is too vague and onerous.
Response: The SPTSDT has removed the self-certification, spot check, periodic audit, and the triggered investigations statements in the Compliance Monitoring & Reset section. These requirements are included in the NERC Compliance Process.		
SRP (1)	no	The process of Triggered Investigations needs to be further refined and defined. One entity could cause another entity a great deal of work and cost by submitting multiple complaints or allegations. What if any recourse does the accused party have available to them? There should at least be an appeal process. Who is allowed to call for a Triggered Investigation? This section is too vague and could become onerous.
Response: The SPTSDT has removed the self-certification, spot check, periodic audit, and the triggered investigations statements in the Compliance Monitoring & Reset section. These requirements are included in the NERC Compliance Process.		
Ron Gunderson; NPPD (1) MISO (1,6) Robert Coish; MEHB (1, 3, 5, 6)	no	This needs to be simplified. We're not sure why there would be spot checks and triggered investigations for training. This standard can be evaluated during the normal audit and self-certification cycle.
Response: The SPTSDT has removed the self-certification, spot check, periodic audit, and the triggered investigations statements in the Compliance Monitoring & Reset section. These requirements are included in the NERC Compliance Process.		
John Bussman:AECI (1,5,6)	no	don't agree with requirement 1
Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirements such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.		
Michael Scott; APS (1,5)	no	The annual self-certification is too frequent. Conducting a thorough self-assessment 18 months following the triennial audit would be effective. This would provide a "halfway point" snapshot of program progress between the audits.
Response: The SPTSDT has removed the self-certification, spot check, periodic audit, and the triggered investigations statements in the Compliance Monitoring & Reset section. These requirements are included in the NERC Compliance Process.		
John Kerr; GRDA	no	The self-certification would be more in line for every 3

Commenter		Comment
		years or when standards change.

Response: The SPTSDT has removed the self-certification, spot check, periodic audit, and the triggered investigations statements in the Compliance Monitoring & Reset section. These requirements are included in the NERC Compliance Process.

Michael Gammon; KCP&L (1)	no	The performance reset period seems a bit harsh. Are there any standards that have a flexible reset period?

Response: The reset period is flexible. The reset period is set at one year to motivate entities into compliance.

Matthew Santos; SDE&G	no	When you notify an entity that they will be audited will you also at that time tell them what they will be audited on or will it be a full blown compliance audit?
		If someone notifys you that we are in noncompliance did you get proof from that entity before proceeding with investigation?

Response:

Regarding what will be audited, each Regional Compliance Monitor will follow the Measures in the standard to perform compliance audits against the requirements in standard.

Concerns regarding the processes involved with a triggered investigation should be addressed with your regional compliance monitor.

Duke Energy (G1) (1)	no	Not completely, no. Compliance monitoring should be consistent across the regions.

Response: This is beyond the scope of this standard. However, the purpose of industry standards development is to achieve consistency.

Allan George; Sunflower (1)	no	Review need only entail list of operators, credentials, and outline of program and progress in program

Response:

Each Regional Compliance Monitor will follow the Measures in the standard to perform compliance audits against the requirements in standard.

Richard Krajewski; Public Service Co of NM (1)	no	The Data Retention requirements are more detailed than necessary and PNM recommends a simple requirement for all training documentation and records to be retained for three-years, similar to the requirement of the NERC CE Program.

Response:

Ron Falsetti; IESO (2)	no	Same as above.

Response: There is insufficient information for the Training Standard Drafting Team to respond to this comment. Future comments should provide a specific reason(s) for the objection such that the Training Standard Drafting Team has an opportunity to respond.

Santee Cooper (G2)	no	It is impractical to evaluate the Compliance Monitoring section until we have a clear understanding of the Requirements in this standard.

Response:

There is insufficient information for the Training Standard Drafting Team to respond to this comment. Future comments should provide a specific reason(s) for the objection such that the Training Standard

Commenter		Comment
Dan Kay; South Mississippi EPA (4)	no	
WECC OTS (1,2) Gordon Rawlings; BCTC (1)	Yes/no	The RRO is identified as the Compliance Monitor for the Standard. The Compliance Monitoring Period and Reset section lists all the potential methods the RRO may use to monitor compliance. OTS recommends Self-certification, Period Audit (required 3-year compliance audit, not the readiness audit), and Triggered Investigations. The Data Retention requirements are more detailed than necessary and OTS (BCTC) recommends a simple requirement for all training documentation and records to be retained for three-years, similar to the requirement of the NERC CE Program.
Response:		
NPCC CP9 (1, 2)	yes	NPCC Participating members have expressed some disagreement with the Requirements as written so the measures are in question as well.
Response: The Requirements and Measures have been re-evaluated and changed for this posting of the standard.		
CJ Ingersoll; CECD (3)	yes	
Dale Wadding; Dairyland Power Cooperative (5)	yes	
Ed Davis; Entergy Services (1)	yes	
FRCC SO Subcommittee (1,2,5)	yes	
SCE&G ERO WG (1, 3, 5)	yes	
MRO (1,2)	yes	
FPL (1,3,5)	yes	
Jason Shaver; ATC (1)	yes	
William J. Smith; Allegheny Power (1)	yes	
TVA (1)	yes	
SPP OTWG (1,2)	yes	
Michael Clime; Ameren	yes	
Southern Co (1,3,5,6)	yes	
Pepco Holdings (1)	yes	
Will Franklin; Entergy (6)	yes	
Jim Sorrels; AEP (1)	yes	

Commenter		Comment
Jim Gunnell; SPP (2)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
Roger McBeth; Northeast Utilities (1)	yes	
James Hinson; ERCOT (2)	yes	
Alan Adamson; NYSRC (2)	yes	
Allen Klassen; Westar (1)	yes	
Brian Thumm; ITC (1)	yes	
Hydro One Networks (1)	yes	
FirstEnergy (1,3,5,6)	yes	

14. Please identify any Regional Differences that you feel should be included in this standard.

Commenter	Comment
SRP (1)	No known Regional Differences
	Is this standard the proper place to insert the WECC CEH requirement of 10 CEH of WECC-specific topics every 2 years?
Response: This standard is not the appropriate place to include specific requirements such as the WECC specific training topics. Any specific items WECC desires to impose on its members should be included in the training plans developed by the WECC and its members.	
Duke Energy (G1) (1)	No known Regional Differences. If the standard is not too detailed and prescriptive, no regional differences will be needed.
Response: The SPTSDT agrees.	
Will Franklin; Entergy (6)	No known Regional Differences
Tim Hattaway; Alabama Electric Coop (5)	No known Regional Differences
Ron Gunderson; NPPD (1)	No known Regional Differences
John Bussman:AECI (1,5,6)	No known Regional Differences
John Kerr; GRDA	No known Regional Differences
Jim Sorrels; AEP (1)	No known Regional Differences
Howard Rulf; WeEnergies (3,4,5)	No known Regional Differences
Gerald LaRose; NYPA (1)	No known Regional Differences
NPCC CP9 (1, 2)	No known Regional Differences
Roger McBeth; Northeast Utilities (1)	No known Regional Differences
Allan George; Sunflower (1)	No known Regional Differences
Ron Falsetti; IESO (2)	No known Regional Differences
Gordon Rawlings; BCTC (1)	No known Regional Differences
James Hinson; ERCOT (2)	No known Regional Differences
Hydro One Networks (1)	No known Regional Differences
FirstEnergy (1,3,5,6)	No known Regional Differences
Alan Adamson; NYSRC (2)	No known Regional Differences
Allen Klassen; Westar (1)	No known Regional Differences

Commenter	Comment
Brian Thumm; ITC (1)	No known Regional Differences
Brian Tuck; BPA (1)	No known Regional Differences
Southern Co (1,3,5,6)	No known Regional Differences.
Michael Scott; APS (1,5)	No known Regional Differences.
WECC OTS (1,2)	No known Regional Differences.
Michael Clime; Ameren	No known Regional Differences.
Matthew Santos; SDE&G	No known Regional Differences.
Mark Bennett; Gainesville Regional Utilities (5)	No known Regional Differences.
Kathleen Goodman; ISO-NE (2)	No known Regional Differences.
Richard Krajewski; Public Service Co of NM (1)	No known Regional Differences.
SPP OTWG (1,2)	No known Regional Differences.
WECC RCCWG (1,2)	No known Regional Differences.
PJM (2)	No known Regional Differences.
MRO (1,2)	No known Regional Differences.
MISO (1,6)	No known Regional Differences.
FPL (1,3,5)	No known Regional Differences.
Jason Shaver; ATC (1)	No known Regional Differences.
William J. Smith; Allegheny Power (1)	No known Regional Differences.
TVA (1)	No known Regional Differences.
Michael Gammon; KCP&L (1)	No known Regional Differences.
ISO/RTO Council (2)	No known Regional Differences.
FRCC SO Subcommittee (1,2,5)	No known Regional Differences.
SCE&G ERO WG (1, 3, 5)	No known Regional Differences.
Santee Cooper (G2)	No known Regional Differences.
Ed Davis; Entergy Services (1)	No known Regional Differences.
Marion Lucas; Alcoa Power Generating, Inc (1)	No known Regional Differences.
Edward J. Carmen; Baltimore Gas & Electric (1)	No known Regional Differences.
CJ Ingersoll; CECD (3)	No known Regional Differences.

Commenter	Comment
Dale Wadding; Dairyland Power Cooperative (5)	No known Regional Differences.

15. Do you agree with the proposed Implementation Plan?

<mark>Summary Consideration:</mark>

<mark>Most commenters did not agree with the proposed Implementation Plan, expressing concern with the proposed implementation time. Based on stakeholder feedback, the implementation plan has been lengthened to three years and the specific dates were removed. Phase 1 is now 18 months; Phase 2 is now 30 months; and Phase 3 is now 36 months.</mark>

Commenter		Comment
WECC OTS (1,2)		The implementation plan was not posted with the Standard but was posted afterwards. While OTS has not had time to evaluate and make recommendations on the implementation plan, we do recommend all specific dates be removed. The plan notes the dates slide with the approval date of the Standard but OTS believes the approximate dates will do more to confusion the issue than to help.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
Dale Wadding; Dairyland Power Cooperative (5)	no	The Implementation Plan states that several reference documents will be issued to assist in compliance with the Standard but fails to establish a timeline for their release. These documents should be available as soon as possible and workshops should be scheduled to assist entities with compliance.
Response: <mark>The SPTSDT is in the process of developing the reference documents indicated by the implementation plan and intends to post them with the next posting of the standard for comment.</mark> The SPTSDT will consider conducting a workshop.		
Southern Co (1,3,5,6)	no	Southern does not believe the proposed standard is necessary, especially as written. Therefore, we do not believe an Implementation plan is needed.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.		
Marion Lucas; Alcoa Power Generating, Inc (1)	no	As above, the entire standard is duplicative, intrusive and overstepping in its bounds. It should be eliminated.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.		
CJ Ingersoll; CECD (3)	no	The current draft should be revised and a new implementation plan drafted to fit the amended draft.
Response: The SPTSDT recognizes modifications to the proposed standard may have an impact on the implementation plan and has posted a new implementation plan with the revised draft of the standard.		
Ron Falsetti; IESO (2)	no	Please see comments in Q19.
Response: The SPTSDT agrees that the element identified is important and are encompassed in the		

Commenter		Comment

revised standard. The SPTSDT has significantly revised the standard based on industry feedback. The standards addresses the core SAT phases.

The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.

The SPTSDT has combined R2 and R3 and removed R4, R5, R6, R7, R8, R9, and R10 from the revised standard. The SPTSDT agrees that the elements identified are important and are encompassed in the revised standard. The SPTSDT has significantly revised the standard based on industry feedback. The standards addresses the core SAT phases.

The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

The SPTSDT has removed Requirement 7 from the revised standard.

The SPTSDT has removed Requirement 5 and Requirement 8.

Kathleen Goodman; ISO-NE (2)	no	See response to question 19

Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

The SPTSDT has significantly revised the standard based on industry feedback.

PJM (2)	no	See response to question 19

Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

The SPTSDT has significantly revised the standard based on industry feedback.

ISO/RTO Council (2)	no	See response to question 19

Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

The SPTSDT has significantly revised the standard based on industry feedback.

Commenter		Comment
Gerald LaRose; NYPA (1)	no	The proposed Standard is an admittedly "complex standard with many requirements" and the Responsible Entities will require time and resources to examine their current practices, complete the requisite analyses and implement the programs to meet the Requirements of these Standards. An Implementation Schedule akin to that required for CIP-002 through CIP-009, i.e., varying degrees of parallel (as opposed to serial) compliance with specific milestones (Begin Work, Substantially Compliant, Compliant, Auditably Compliant applied to all Requirements at the same time as opposed to strict Auditable Compliance for each grouping within the serial stages) over four years rather than two. Many budgets for 2007 are already locked-in and the first serial stage in particular (R1, R2, R3) will be costly.
Response: The SPTSDT understands the cost implications as a result of the approval of this standard, however, there is an urgent priority placed on the industry by the Electric Reliability Organization and FERC to develop training programs that provide the basis to ensure quality and effective training and that are audit consistent.		
FRCC SO Subcommittee (1,2,5)	no	We appreciate the significant effort that went into the current draft of PER-005-1. As stated previously, for future flexibility of the "training" standards, we would encourage the drafting team to re-evaluate its creation of the "new" standard. We would suggest rolling in the appropriate requirements (JTA concept and the other requirements into the existing training standards (PER-002 applicable to BAs and TOPs and PER-004 applicable to RCs)).
		The requirements may be duplicated as necessary in both standards, but preservation of the individual standards would allow the flexibility to create appropriate requirements and improvements to the standards without having to address ALL stakeholders affected by the standard. It is difficult to justify that the same training requirements should be applied to a 100 MW (peak load) Balancing Authority as to a Reliability Coordinator that evaluates the wide area view of a 45,000 MW system.
		Simply, this would allow flexibility for the industry to evaluate future training requirements that could enhance Interconnection reliability and apply them with a higher degree of precision and appropriateness.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
FPL (1,3,5)	no	We appreciate the significant effort that went into the current draft of PER-005-1. As stated previously, for future flexibility of the "training" standards, we would encourage the drafting team to re-evaluate its creation of the "new" standard. We would suggest rolling in the appropriate requirements (JTA concept and the other requirements into the existing training standards (PER-002 applicable to BAs and TOPs and PER-004 applicable to RCs)).
		Simply, this would allow flexibility for the industry to evaluate future training requirements that could enhance Interconnection reliability and apply them with a higher degree of precision and appropriateness.
Response: During the development of the SAR for this standard, most stakeholders agreed that there		

Commenter		Comment
is a reliability-related need for a new training standard.		
Matthew Santos; SDE&G	no	I believe more time 4 to 5 years is needed for all entities to get it done right. So a phasing in period would be the best approach. But more dialog is needed, we do not need to rush into this half cocked.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.

Jason Shaver; ATC (1)	no	ATC does not agree with the implementation schedule with the proposed standard as written. ATC strongly recommends that the implementation schedule be extended for an additional one to two years based upon the way the standard is currently written.
		Phase 1 should be 18-24 months
		Phase 2 should be 24-36 months
		Phase 3 should be 36-48 months
		ATC may agree with the implementation schedule as is if the SDT modifies the requirements in accordance with ATC's recommendations.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Pepco Holdings (1)	no	Phase I is permitted and could take up to one year to complete. Phase II will most likely be dependant on completion of Phase I. Extend Phase II and Phase III each by six months, extending the entire schedule to December 31, 2009.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. The time lines and phases have been adjusted.

Ed Davis; Entergy Services (1)	no	The Implementation Plan references standard PER-004-1. If there is an approved PER-004-1 it is not on the NERC standards website. There is an approved standard PER-004-0.
		We suggest the Phased Implementation Period be over 3 years rather than the 2 years indicated.
		The following statement is contained in the discussion of PER-004-1 R3 and R4 - In addition, one of the purposes of requirement R6.4.2. in this standard is to develop a Reliability Coordinator's knowledge of other entities in the Reliability Coordinator's area. Should the reference to R6.4.2 actually be R6.5.2?
		The Applicability section contains a statement about System Operators under contract or delegation agreement. Please see our suggested changes contained our response to Question 19 in this document, including our concerns regarding Sytsem Operators under contract or System Operators performing tasks identified in R1 under delegation agreement.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.

Commenter		Comment
Jim Sorrels; AEP (1)	no	No. AEP does not agree with the proposed implementation plan. AEP recommends a phased implementation approach over a 3-year period. Compliance to Requirements 1-3 should start 18 months after FERC approval, compliance to Requirements 4-7 should begin after 30 months, and compliance to Requirements 8-10 should begin after 36 months. Additionally, AEP disagrees with the retiring of PER-004-1 Requirements 3 and 4 upon implementation of this proposed standard. The drafting team incorrectly assumes the job task analysis for a Reliability Coordinator's System Operators would obviously include these requirements as tasks to be performed by a Reliability Coordinator. But if the NERC Standards do not have a requirement such as PER-004-1 R3 and R4, then why would they include this in their job task analysis? It would be a step backward for reliability to assume that every entity has the same interpretation of what an entity is to do and not to do. If we could make this assumption, then we wouldn't need Mandatory Standards. AEP can only support the retiring all of PER-004-1 if the drafting team can show where else in the NERC Standards an RC is required to perform what is contained in PER-004-1 R3 and R4.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
William J. Smith; Allegheny Power (1)	no	Too aggressive for the standard in it's present form. All phases of the Implementation Plan should be extended by 12 months.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
Duke Energy (G1) (1)	no	In the current draft, the implementation plan is too short. If the requirements are re-written to be less prescriptive and detailed, a two year plan may be workable.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
WECC RCCWG (1,2)	no	Much too aggressive. Entities are still struggling with Emergency and CEH training requirements. The implementation should be extended to give eitities time to prepare for these requirements.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
SPP OTWG (1,2)	no	If the standard is implemented as is, it would require additional training staff and the purchase of an LMS, which would make the implementation unrealistic. All of these requirements should begin on January 1 so that compliance is consistent for the year. We would prefer to see some examples of quality JTAs. We believe it's necessary to have some benchmark standards that can be used across the industry.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Any proposed standard is required to become effective the quarter following FERC approval of the		

Commenter		Comment
standard[ljc5].		
Michael Clime; Ameren	no	The plan is to aggressive especially if some of the training is not thoroughly developed at the current time. A lot of companies will be required to hire another Trainer just to do development work and record keeping.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
SCE&G ERO WG (1, 3, 5)	no	Twelve months is not enough time unless a standard list of " reliability related task" and agreement by the industry of minimun requirments as associated with these task as it applies to R1.1 through R1.7 can be provided.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html).		
Santee Cooper (G2)	no	Twelve months may not be a reasonable length of time for many companies depending on the expectations of a JTA and whether it is applicable to all tasks or tools or changes to all tasks and tools. The Phase II and Phase III implementation dates may be ok if the first implementation date for the JTA is extended significantly.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
Will Franklin; Entergy (6)	no	R6.5 on "EOPs" should be implemented immediately since the industry is currently held to this requirement under a memo issued after the 2003 blackout. PER-002 already requires this training. If PER-002 is eliminated by this standard then R6.5 should become effective immediately. Also, the implementation plan proposes to retire PER-004 and states that PER-004 R1 is duplicated in PER-003. This is not completely true. PER-004 R1 states that the RC will be staffed 24/7, but PER-003 just states that the operators will be NERC Certified. Later in the Measures it states it will be staffed "at all times". PER-003 should be modified if PER-004 is to be eliminated.
Response: The SPTSDT Team has revised the implementation timeline with the revised draft of the standard that addresses the immediate implementation of EOP hour requirements and PER-004. Your comments on the inconsistency between PER-004 R1 and PER-003 are correct and the iImplementation pPlan has been revised accordingly. Your comment on PER-004 R1 needing to remain in PER-004 is also correct and this is reflected in the implementation Implementation pPlan.		
SRP (1)	no	The sheer volume of documentation that this Standard will require will take a lot of time. Many entities are already struggling to meet the training hour requirements. This would further tax resources that are already fully subscribed. The implementation plan is much too aggressive and should be extended to give entities time to prepare for these requirements. At a minimum the implementation plan should consider the burden expected by the new standard for support personnel.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		

Commenter		Comment
John Bussman: AECI (1,5,6)	no	We agree that some of the other training design requirements should be retired if this standard is adopted. This standard should be simplified prior to implmentation. Also the two-year implementation plan might be too short to put all this detail in a training program.
Response: The SPTSPD has revised the standard based on stakeholder feedback. The implementation plan has been lengthened to three years and the dates were removed.		
John Kerr; GRDA	no	The implementation as is would be a considerable expense for everyone. Examples and explanations should be give first.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Additional information on your request for examples and explanations is needed to respond to this comment.		
Roger McBeth; Northeast Utilities (1)	no	If NERC only provides a generic task list, organizations will not be able to complete a company specific task list and support a company specific job task analysis that meets the requirements of R.1.1 thru R.1.7 in one year with available resources. Organizations can not support the requirements of their existing Initial and Continuing Training Programs and complete a manpower intensive Job Analysis/Task Analysis at the same time. Most organizations do not have a training staff with the experience necessary to perform a Job Task Analysis. This will require organizations to seek contractor support to complete the requirement in that amount of time. If all utilities seek contractor support to complete their JTAs within the one year there will be a huge vacuum created by the lack of contractors to support this effort. A company specific job task analysis will also require the involvement of subject matter experts which means additional demands on your system operator's time. Organizations will be challenged to free up operators to serve as subject matter experts (SME) in support of a company specific JTA.
Response: Based on stakeholder feedback, the iImplementation pPlan has been lengthened to three years and the dates were removed.		
Hydro One Networks (1)	no	Preparation for compliance with this Standard represents considerable work. The Implementation Plan should give more time to become auditable compliant.
Response: Based on stakeholder feedback, the iImplementation Pplan has been lengthened to three years and the dates were removed.		
Allen Klassen; Westar (1)	no	Not giving enough time to meet the new requirements (lots of development and creating excessive documentation will have to be done) and should not make ANY requirement effective mid-year. Suggest effective dates of 1/1/2009 for R1 - R7 and 1/1/2010 for R8 - R10 at the earliest.
Response: Based on stakeholder feedback, the iImplementation pPlan has been lengthened to three years and the dates were removed. Effective date start FERC…		

Commenter		Comment
Brian Thumm; ITC (1)	no	The two-year implementation plan is too short to develop the comprehensive documentation required by the proposed standard. Requirement R7 will be the most demanding, and at a minimum, it should be moved into Phase 3 in order to allow for a few extra months to complete it.
Response: Based on stakeholder feedback, the l~~i~~mplementation ~~p~~Plan has been lengthened to three years and the dates were removed.		
Allan George; Sunflower (1)	no	
~~Response: There is insufficient information for the Training Standard Drafting Team to respond to this comment. Future comments should provide a specific reason(s) for the objection such that the Training Standard Drafting Team has an opportunity to respond.~~		
Dan Kay; South Mississippi EPA (4)	no	
~~Response: There is insufficient information for the Training Standard Drafting Team to respond to this comment. Future comments should provide a specific reason(s) for the objection such that the Training Standard Drafting Team has an opportunity to respond.~~		
Mark Bennett; Gainesville Regional Utilities (5)	no	
~~Response: There is insufficient information for the Training Standard Drafting Team to respond to this comment. Future comments should provide a specific reason(s) for the objection such that the Training Standard Drafting Team has an opportunity to respond.~~		
Ron Gunderson; NPPD (1)	Yes/no	
~~Response: There is insufficient information for the Training Standard Drafting Team to respond to this comment. Future comments should provide a specific reason(s) for the objection such that the Training Standard Drafting Team has an opportunity to respond.~~		
Richard Krajewski; Public Service Co of NM (1)	Yes/no	See response to #18
Response: The SPTSDT has reviewed the comment that the implementation timeline should be extended and has revised the ~~implementation~~ Implementation ~~p~~Plan to reflect an implementation timeline of 2 to 3 years and removed all specific dates.		
The SPTSDT has revised the ~~i~~implementation timeline with the revised draft of the standard.		
MISO (1,6)	Yes/no	We agree that some of the other training design requirements should be retired if this standard is adopted. This standard should be simplified prior to implmentation. Also the two-year implementation plan might be too short to put all this detail in a training program.
Response: The STPSTD has modified the standard based on stakeholder feedback. Based on stakeholder feedback, the l~~i~~mplementation P~~p~~lan has been lengthened to three years and the dates were removed.		
Michael Gammon; KCP&L (1)	yes	I agree with the plan components, however, I think the implementation time frame is bit aggressive for most entities.
Response: Based on stakeholder feedback, the ~~i~~Implementation ~~p~~Plan has been lengthened to three years and the dates were removed.		

Commenter		Comment
James Hinson; ERCOT (2)	yes	How do they confirm that any implementation has taken place
Response: Upon approval of the training standard PER-005, the Regional Compliance Monitors will determine appropriate implementation by audit of the standards requirements, measures and approved implementation plan time line.		
Howard Rulf; WeEnergies (3,4,5)	yes	
NPCC CP9 (1, 2)	yes	
Gordon Rawlings; BCTC (1)	yes	
Robert Coish; MEHB (1, 3, 5, 6)	yes	
FirstEnergy (1,3,5,6)	yes	
TVA (1)	yes	
MRO (1,2)	yes	
Michael Scott; APS (1,5)	yes	
Alan Adamson; NYSRC (2)	yes	

16. Do you agree with the drafting team that this standard does not need to be field tested?

Commenter		Comment
Matthew Santos; SDE&G		To soon to proceed, the standard needs more ironing out.

Response: There is insufficient information for ~~the System Training Standard Drafting Team~~the SPTSDT to respond to this comment.

| Kathleen Goodman; ISO-NE (2) PJM (2) ISO/RTO Council (2) | | The proposed standard requires more public discussion before discussing field testing needs. |

Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.

| Richard Krajewski; Public Service Co of NM (1) | no | PNM recommends field testing should be a standard practice for all NERC Standards. Field testing reveals administrative concerns and sometimes substantive concerns that were not foreseen. All standards should be subject to at least a brief field testing period. |

Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.

| Roger McBeth; Northeast Utilities (1) | no | The drafting team should commit to not only provide a generic task list but also a generic JTA for the generic task list. A field test may help them recognize the unreasonable demand that this standard will place on the organziations. |

Response: In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List. (http://www.nerc.com/~filez/standards/System-Personnel-Training.html)

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology~~

Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.

| Gordon Rawlings; BCTC (1) | no | BCTC recommends field testing should be the practice for all NERC Standards. Field testing reveals administrative concerns and sometimes larger concerns that were not foreseen. All standards should be subject to at least a brief field testing period. |

Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.

| **Hydro One Networks (1)** | no | There must be a field test to assess any impacts and adjust the standard accordingly. |

Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for

Commenter		Comment
this standard.		
Brian Tuck; BPA (1)	no	PA recommends field testing as a standard practice for all NERC Standards. Field testing reveals administrative concerns and sometimes substantive concerns that were not foreseen. All standards should be subject to at least a brief field testing period.
Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.		
Richard Appel; Sunflower Electric Power Co (1,3,5)	no	I don't think anybody out there has enough staff on board to implement this standard. If we have a field testing period most would find that it just won't work as written.
Response: The SPTSDT has significantly revised the standard based on industry feedback. Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.		
WECC OTS (1,2)	no	OTS recommends field testing should be a standard practice for all NERC Standards. Field testing reveals administrative concerns and sometimes substantive concerns that were not foreseen. All standards should be subject to at least a brief field testing period.
Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.		
SCE&G ERO WG (1, 3, 5)	no	A field test should be required to provide critical feedback to the industry which should save both time and money in the implementation phase and improve the compliance and audit process.
Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.		
Santee Cooper (G2)	no	A field test may provide critical feedback in determining realistic implementation dates, requirements, and measures.
Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.		
Dan Kay; South Mississippi EPA (4)	no	
FRCC SO Subcommittee (1,2,5)	no	
FPL (1,3,5)	no	
Ron Gunderson; NPPD (1) MISO (1,6)	yes	Some workshops and templates or examples of what meets the standard would be useful.
Response: The SPTSDT will consider conducting a workshop.		
John Bussman:AECI (1,5,6)	yes	However, I don't think this standard is necessary.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		

Commenter		Comment
John Kerr; GRDA	yes	Any new training standard should be field tested before implementation without penalty.

Response: Most stakeholders indicated agreement with the SPTSDT that field testing is not needed for this standard.

Commenter		Comment
Mark Bennett; Gainesville Regional Utilities (5)	yes	Not only does it not need to be field tested It need to be forgotten about. It is already covered.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Commenter		Comment
William J. Smith; Allegheny Power (1)	yes	We agree that field testing is not necessary. However seminars and/or training material to throughly explain this standard and examples of a compliant training program are required before this standard can be implemented.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

The SPTSDT will consider conducting a workshop.

Commenter		Comment
Duke Energy (G1) (1)	yes	Yes, but for a different reason -- the decision on a field test should be made on a more mature draft of the standard. The comments presented here anticipate a significant change in the next draft of this standard.

Response: The SPTSDT has significantly revised the standard based on industry feedback. During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Commenter		Comment
Robert Coish; MEHB (1, 3, 5, 6)	yes	
Ed Davis; Entergy Services (1)	yes	
Marion Lucas; Alcoa Power Generating, Inc (1)	yes	
CJ Ingersoll; CECD (3)	yes	
Dale Wadding; Dairyland Power Cooperative (5)	yes	
Will Franklin; Entergy (6)	yes	
SPP OTWG (1,2)	yes	
WECC RCCWG (1,2)	yes	
Jason Shaver; ATC (1)	yes	
TVA (1)	yes	
Michael Gammon; KCP&L (1)	yes	
MRO (1,2)	yes	
Tim Hattaway; Alabama Electric Coop (5)	yes	
SRP (1)	yes	

Commenter		Comment
Jim Sorrels; AEP (1)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
Gerald LaRose; NYPA (1)	yes	
NPCC CP9 (1, 2)	yes	
Allan George; Sunflower (1)	yes	
Ron Falsetti; IESO (2)	yes	
James Hinson; ERCOT (2)	yes	
FirstEnergy (1,3,5,6)	yes	
Allen Klassen; Westar (1)	yes	
Brian Thumm; ITC (1)	yes	
Southern Co (1,3,5,6)	yes	
Pepco Holdings (1)	yes	
Michael Scott; APS (1,5)	yes	
Michael Clime; Ameren	yes	

17. 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 here.

Commenter	Comment
NPCC CP9 (1, 2)	Conflicts with sections of PER-002.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The SPTSDT plans to recommend retiring PER-002.	
Alan Adamson; NYSRC (2)	Conflicts with sections of PER-002.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The SPTSDT plans to recommend retiring PER-002.	
Southern Co (1,3,5,6)	No known conflicts.
Pepco Holdings (1)	No known conflicts.
Michael Scott; APS (1,5)	No known conflicts.
WECC OTS (1,2)	No known conflicts.
Michael Clime; Ameren	No known conflicts.
Matthew Santos; SDE&G	No known conflicts.
Mark Bennett; Gainesville Regional Utilities (5)	No known conflicts.
Kathleen Goodman; ISO-NE (2)	No known conflicts.
Richard Krajewski; Public Service Co of NM (1)	No known conflicts.
SPP OTWG (1,2)	No known conflicts.
PJM (2)	No known conflicts.
MRO (1,2)	No known conflicts.
FPL (1,3,5)	No known conflicts.
Jason Shaver; ATC (1)	ATC believes that this proposed standard as written is duplicative and in conflict with the requirements of NERC's CE Program. The SDT should align this standard with the NERC CE Program.
Response: The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard	

Commenter	Comment
~~that conflicts with the CE Program requirements.~~	
William J. Smith; Allegheny Power (1)	No known conflicts.
TVA (1)	No known conflicts.
Michael Gammon; KCP&L (1)	No known conflicts.
ISO/RTO Council (2)	No known conflicts.
FRCC SO Subcommittee (1,2,5)	No known conflicts.
SCE&G ERO WG (1, 3, 5)	No known conflicts.
Santee Cooper (G2)	No known conflicts.
Ed Davis; Entergy Services (1)	No known conflicts.
Marion Lucas; Alcoa Power Generating, Inc (1)	No known conflicts.
Edward J. Carmen; Baltimore Gas & Electric (1)	No known conflicts.
CJ Ingersoll; CECD (3)	No known conflicts.
Dale Wadding; Dairyland Power Cooperative (5)	No known conflicts.
Duke Energy (G1) (1)	No known conflicts.
Will Franklin; Entergy (6)	No known conflicts
SRP (1)	No known conflicts
Ron Gunderson; NPPD (1)	No known conflicts
John Bussman:AECI (1,5,6)	No known conflicts
John Kerr; GRDA	No known conflicts
Jim Sorrels; AEP (1)	No known conflicts
Howard Rulf; WeEnergies (3,4,5)	No known conflicts
Gerald LaRose; NYPA (1)	No known conflicts
Roger McBeth; Northeast Utilities (1)	No known conflicts
Allan George; Sunflower (1)	No known conflicts
Ron Falsetti; IESO (2)	No known conflicts
Gordon Rawlings; BCTC (1)	No known conflicts
James Hinson; ERCOT (2)	No known conflicts
Hydro One Networks (1)	No known conflicts
FirstEnergy (1,3,5,6)	No known conflicts

Commenter	Comment
Allen Klassen; Westar (1)	No known conflicts
Brian Thumm; ITC (1)	No known conflicts
Brian Tuck; BPA (1)	No known conflicts

18. Do you agree with the implementation plan that phases in compliance with the requirements over two years?

==Summary Consideration:==

==This question appears to be redundant with question #15 of the Comment Form. The SDPSDT has revised the implementation plan such that the implementation timeline has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months. Several commenters expressed the need for public discussion, workshops, etc. The Training Standard Drafting Team agrees these forums are valuable and useful and will consider hosting such forums.==

Group Note – ensure that the response about the implementation timelines is accurate (following review/revision to Implementation Plan)

Commenter		Comment
WECC OTS (1,2)		The implementation plan was not posted with the Standard but was posted afterwards. While OTS has not had time to evaluate and make recommendations on the implementation plan, we do recommend all specific dates be removed. The plan notes the dates slide with the approval date of the Standard but OTS believes the approximate dates will do more to confusion the issue than to help.
Response: The SPTSDT has reviewed the comment that the implementation timeline should be extended and has revised the implementation plan to reflect an implementation timeline of 2 to 3 years and removed all specific dates. The SPTSDT has revised the implementation timeline with the revised draft of the standard.		
Richard Krajewski; Public Service Co of NM (1)		PNM recommend all specific dates be removed. The plan notes the dates slide with the approval date of the Standard but PNM believes the approximate dates will do more to confusion the issue than to help.
Response: The SPTSDT has reviewed the comment that the implementation timeline should be extended and has revised the implementation plan to reflect an implementation timeline of 2 to 3 years and removed all specific dates. The SPTSDT has revised the implementation timeline with the revised draft of the standard.		
Marion Lucas; Alcoa Power Generating, Inc (1)	no	Should not be implemented at all
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
Richard Appel; Sunflower Electric Power Co (1,3,5)	no	I don't feel that it should be implemented at all.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.		
Will Franklin; Entergy (6)	no	See comment in question # 15
Response: Based on stakeholder feedback, the iImplementation plan has been lengthened to three years and the dates were removed.		
SRP (1)	no	See comments on # 15.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		

Commenter		Comment
Santee Cooper (G2)	no	Refer to response on 15.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
William J. Smith; Allegheny Power (1)	no	See answer to question 15.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
Pepco Holdings (1)	no	See comments to Question 15
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
Jason Shaver; ATC (1)	no	See refer to ATC's response to question 15.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed.		
Kathleen Goodman; ISO-NE (2)	no	The proposed standard requires more public discussion before discussing implementation plans.
Response: The Standard Drafting team must utilize the NERC Standard Drafting process for obtaining comments on the proposed Standard for any posted drafts. There will be an opportunity for a second comment period for Draft 2 of this proposed standard. The SPTSDT will consider conducting a workshop.		
FPL (1,3,5)	no	The standard needs additional drafting prior to evaluating the implementation plan.
Response: The SPTSDT has significantly revised the standard based on industry feedback. The SPTSDT recognizes modifications to the proposed standard may have an impact on the implementation plan.		
NPCC CP9 (1, 2)	no	NPCC Participating members cannot comment or agree to the implementation plan until a final draft of the standard is available.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.		
PJM (2)	no	The proposed standard requires more public discussion before discussing implementation plans.
Response: The SPTSDT must utilize the NERC Standard Drafting process for obtaining comments on the proposed Standard for any posted drafts. There will be an opportunity for a second comment period for Draft 2 of this proposed standard. The SPTSDT will consider conducting a workshop.		
ISO/RTO Council (2)	no	The proposed standard requires more public discussion before discussing implementation plans.
Response: The SPTSDT must utilize the NERC Standard Drafting process for obtaining comments on the proposed Standard for any posted drafts. There will be an opportunity for a second comment period for Draft 2 of this proposed standard. The SPTSDT will consider conducting a workshop.		
FRCC SO Subcommittee (1,2,5)	no	The standard needs additional drafting prior to evaluating the implementation plan.

Commenter		Comment
Response: The SPTSDT must utilize the NERC Standard Drafting process for obtaining comments on the proposed Standard for any posted drafts. There will be an opportunity for a second comment period for Draft 2 of this proposed standard. The SPTSDT will consider conducting a workshop. The SPTSDT recognizes modifications to the proposed standard may have an impact on the implementation plan.		
Ron Falsetti; IESO (2)	no	We cannot assess this until after the implementation plan is revised according to the changes made to the standard.
Response: ~~The SPTSDT agrees with your comment.~~Agreed. The SPTSDT has significantly revised the standard based on industry feedback. The SPTSDT recognizes modifications to the proposed standard may have an impact on the implementation plan.		
Gerald LaRose; NYPA (1)	no	The proposed Standard is complex in nature and contains many Requirements and will be potentially costly to many Entities. The Responsible Entities will require time and resources to perform the depth and breadth of work mandated. An Implementation Schedule over four years rather than two better complements the five-phases of the systematic approach to training and will significantly increase the probability that this effort be accomplished in a complete and thorough manner with the costs spread over a realistic time frame.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months. The SPTSDT has significantly revised the standard based on industry feedback.		
Michael Clime; Ameren	no	Should be longer.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.		
Jim Sorrels; AEP (1)	no	This appears to be a repeat of question 15 above. AEP would like to see this changed to phase-in time period of 3 years.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.		
SPP OTWG (1,2)	no	Realistically implementation may take more than two years. Refer to question #15.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.		
MRO (1,2)	no	The MRO recommends that compliance measurement and enforcement wait until after the two-year phase-in period. There is concern that measuring compliance on only a portion of the standard will lead to a disjointed standard where compliance is not measured uniformly.
Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36		

Commenter		Comment
		months.

Commenter		Comment
MISO (1,6)	no	More time will be needed if the standard is too prescriptive. Most entities will have to put material together for hundreds of tasks and training activities.

Response: The SPTSDT has significantly revised the standard based on industry feedback.

Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Michael Gammon; KCP&L (1)	no	I think two years is too aggressive for companies that do not have and cannot afford to have a dedicated training staff and do not need a dedicated training staff. Although, the standard espouses appropriate training elements, I think companies that do not have a dedicated staff will need three years to meet this standard.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

SCE&G ERO WG (1, 3, 5)	no	Twelve months is not enough time unless a standard list of " reliability related task" and agreement of the industry of minimun requirments as associated with these tasks as it applies to R1.1 through R1.7 can be provided.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html).

Ed Davis; Entergy Services (1)	no	We suggest the Phased Implementation Period be over 3 years rather than the 2 years indicated.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Matthew Santos; SDE&G		It needs to be extended, unless you are saying the standard goes into effect and then in 2 years later we start with compliance?

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Allen Klassen; Westar (1)	no	Not giving enough time to meet the new requirements (lots of development and creating excessive documentation will have to be done) and should not make ANY requirement effective mid-year. Suggest effective dates of 1/1/2009 for R1 - R7 and 1/1/2010 for R8 - R10 at the earliest.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

effective dates based on discussion with MELNERC staff

Hydro One Networks (1)	no	The phase in period should be conmensurate with the entity size. Larger entities may take longer to comply with

Commenter		Comment
		this standard. Please see our response to question 15.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Commenter		Comment
Edward J. Carmen; Baltimore Gas & Electric (1)	no	Longer time will be required to comply with this standard. Many organizations are currently not properly staffed to accommodate this increased workload.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Commenter		Comment
Dale Wadding; Dairyland Power Cooperative (5)	no	Depending upon the level of detailed requirements in the final Standard, more than 24 months may be required to implement all components.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Commenter		Comment
Duke Energy (G1) (1)	no	In the current draft, the implementation plan is too short. If the requirements are re-written to be less prescriptive and detailed, a two year plan may be workable.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

The SPTSDT has significantly revised the standard based on industry feedback.

Commenter		Comment
Brian Thumm; ITC (1)	no	As described in question 15, the two-year implementation plan is too short to develop the comprehensive documentation required by the proposed standard. Requirement R7 will be the most demanding, and at a minimum, it should be moved into Phase 3 in order to allow for a few extra months to complete it.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

~~Requirement~~ R7 has been removed from the standard.

Commenter		Comment
Brian Tuck; BPA (1)	no	The implementation plan will need to be assessed once changes to the requirements requested by BPA and other commenters are included in the next revision of the standard.
		BPA agrees with the concept of phased implementation. That said, to implement the training program described by this standard, in a manner that reflects the quality and effectiveness expected by industry participants, will require longer than two years.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

The SPTSDT has significantly revised the standard based on industry feedback.

Commenter		Comment
Roger McBeth; Northeast	no	Organizations will not have the inhouse resources to

Commenter		Comment
Utilities (1)		comply with this standard and will result in a considerable expense to complete a company specific JTA using a vendor.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Commenter		Comment
Ron Gunderson; NPPD (1)	no	More time will be needed if the standard is too prescriptive. Most entities will have to put material together for hundreds of tasks and training activities.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

The SPTSDT has significantly revised the standard based on industry feedback.

Commenter		Comment
Mark Bennett; Gainesville Regional Utilities (5)	no	
Allan George; Sunflower (1)	no	
CJ Ingersoll; CECD (3)	no	
Dan Kay; South Mississippi EPA (4)	no	
Robert Coish; MEHB (1, 3, 5, 6)	Yes/no	However, more will be needed if the standard is too prescriptive. Most entities will have to put material together for hundreds of tasks and training activities.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

The SPTSDT has significantly revised the standard based on industry feedback.

Commenter		Comment
John Bussman: AECI (1,5,6)	yes	If the requirements in R1 can be generic to allow the companies to prepare a traing program.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Commenter		Comment
John Kerr; GRDA	yes	After some serious adjustments, this could be inplemented in two years. No as it is now however.

Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Commenter		Comment
Gordon Rawlings; BCTC (1)	yes	The plan says in part that PER-004-1 will be replaced with this Standard. The existing Standard is PER-004-0. Did the document mean to say PER-004-0 or is there a new PER-004-1 in progress that BCTC is not aware of or was this a typo?
Response: The ~~Training Standard Drafting~~SPTSDT ~~Team~~ will correct all incorrect references to the proposed standard PER-005.		
TVA (1)	yes	
Michael Scott; APS (1,5)	yes	
Southern Co (1,3,5,6)	yes	
Alan Adamson; NYSRC (2)	yes	
FirstEnergy (1,3,5,6)	yes	
Howard Rulf; WeEnergies (3,4,5)	yes	
James Hinson; ERCOT (2)	yes	

19. Please provide any other comments you have on this standard that you haven't already provided above.

Commenter	Comment
Allan George; Sunflower (1)	I do not believe this extensive standard is necessary with the current CEH program that requires operating personnel to become and remain certified and CEH's must be maintained.Currently training and training requirements and registration of CEH's seems to detail that all Certified operators are being adequately reained in all areas. Is that not the intent os EOPS, simulator and class room training? Each Entity designs their training program to train oparators based on tasks they percieve as critical to its system. This Standard for compliance seems too aggressive for all companies to comply, most don't have budget or personnel to maintain this extensive standard.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.	
WECC RCCWG (1,2)	This standard will require more Staff to meet requirements thereby increasing the cost of providing power to our customers with little benefit for these customers.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.	
Dan Kay; South Mississippi EPA (4)	There is no need for this standard. The NERC System Operator Certification Program with the required continiuing education for re-certification that is allready in place is more than sufficient to ensure an adequate level of training is accomplished for System Operators to know and to abide by NERC standards. The Employer of the System Operator is alleady held accountable via the 100 or so present standards, each with multiple requirments, should the System Opertator not be sufficintly trained and cause a violation of these standards.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements. Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.	
Tim Hattaway; Alabama Electric Coop (5)	These training requirments are reminecent of kudzu (a fast growing vine with deep roots planted years ago to help stop soil erosion). Just like the unstoppable vines that have taken over and smothered other plants, climbed trees and taken over crops, these proposed training requirements reflect kudzu in that they keep growing. Rules, regulations and documentation overkill are strangling the efforts to operate a reliable power system.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.	
Mark Bennett; Gainesville	My opinion is this standard is not necessary at this time. What seems to

Commenter	Comment
Regional Utilities (5)	be taking place is somewhat backwards. In the past all entities wer required to develop[a training plan to ensure that there was competent personnel manning Control Centers. Each entity developed their individual programs based on the tasks that they percieved as " high risk, or important". This got accomplished. Now I see a SAR dictating exactly how a training program should look and what sort of back up documentation is required. What kind of measurements and possible fines for not having a program as narrated in the SAR. The schedule for Compliance is too aggressive for some companies that don't have " dedicated, qualified trainers.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

Commenter	Comment
Santee Cooper (G2)	The NERC CE Program is a good program for the industry. It is requiring additional training for the system operators in a well structured manner. Interpretations of this standard that do not permit flexibility for companies to apply judgement to the overall implementation of their training programs and associated analyses would result in this standard being overly prescriptive

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

Commenter	Comment
Richard Krajewski; Public Service Co of NM (1)	The drafting team should provide detailed responses to the comments expressed in this form and in accordance with the spirit of the standard drafting process. Finally, PNM thanks the drafting team for your dedicated concern and efforts to improve our industry by helping entities develop valuable and effective training programs for System Operators.

Response: Thank you for your support. The SPTSDT has reviewed each comment and provided responses, as well as modified the requirements based on stakeholder feedback.

Commenter	Comment
Matthew Santos; SDE&G	A lot of these requirements need adjustment so that they are not burdensome. You can come up with all the requirements you think fit and will work but the bottom line is can it physicallly be done in the short amount of time you have allotted not to mention money but mostly personnel to carry it out. There are a lot of trainers that are overworked, overloaded and burning out and it is very hard to find qualified folks to be trainers, the industry is in short supply. The only viable option is to have a vender do it, this also takes time. We are 2 years in the running in building our training program with a vender. Why is it taking so long, manangement has to buy into it, chossing a vender, working with the vender to get what you want, vender time to complete based on their other clients, completeing JTA for all positions, production, add your companies materials (Procedures, referances, etc) revise, review, deliver, revise. All this takes time not to mention that existing training is still going on with everything else. Real time issues take presendance

Commenter	Comment
	over anything else. We still in the process with the vender to complete our training program.

Response: The SPTSDT has significantly revised the standard based on industry feedback.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Commenter	Comment
Duke Energy (G1) (1)	The purpose of this standard is to ensure system operators are competent; however, the standard fails to ensure or measure competency. NERC certification, continuing education requirements, recommended training topics, and training activities approved by NERC is sufficient direction for an effective training program.
	The standard should be boiled down to the core training requirements (develop a program, deliver training [including and consistent with CEH], record and assess progress, adjust the program annually).

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements. ~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter	Comment
Jason Shaver; ATC (1)	In general, the requirements of this standard are overly prescriptive and unduly burdensome on the industry as they ignore the existing continuing education requirements already in place under the NERC CE Program.
	In addition, this standard needs to be flexible enough such that it allows entities to meet either a portion or all of its organizational training requirements via external NERC approved CE training vendors, under the existing CE Program, without requiring the entity to re-document and justify training courses previously approved by NERC.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements. ~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter	Comment
MISO (1,6)	The standard should be boiled down to the core training requirements (develop a program, deliver training [including and consistent with CEH], record and assess progress, adjust the program annually). It would be simpler if this standard were measured globally (3 of the 4 requirements with no deficiencies is passing, minor deficiencies in 2 requirements is level 1, etc.).
	We agree that training is very important, but importance is not the same as the risk. Depending on how this standard is read, there appear to be 40 different things for which non-compliance can be assessed (and almost all of them are rated at medium or high risk). Deviating from a

Commenter	Comment
	template training design does not put the Interconnections at risk of cascading. The standard as a whole should be evaluated at a lower risk. This standard should absorb the 32 hours of emergency training. Alternatively, this standard could lay out a way to evaluate "certified training providers".

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

A requirement has been added to the standard to address the 32 hours of emergency training.

Robert Coish; MEHB (1, 3, 5, 6)	The System Personnel Training Standard lays out guidelines for a well thought out training program. However, there are other ways to have an effective training program and each organization's needs are not the same. The primary issues relate to the administrative complexity and the compliance elements in the standard. There are a significant number of items for which non-compliance can be assessed. The team proposes that many of these are high and medium risk requirements. High risk requirements are events/items that can directly lead to cascading. Varying the design of a training program cannot directly lead to cascading outages. Also, the team has not proposed what tasks are considered reliability related tasks, leaving it to each company to determine. By not defining a minimum suite of reliability related tasks for Reliability Coordinator, Balancing Authority and Transmission Operator, who will determine if the company identified reliability tasks cover even a reasonable subset of tasks performed by the system operator. If no minimum set of reliability tasks are identified, the standard will not ensure that all companies are doing the right thing and the training of system operators will not be improved.
	The standard should be boiled down to the core training requirements (develop a program, deliver training [including and consistent with CEH], record and assess progress, adjust the program annually). It would be simpler if this standard were measured globally (3 of the 4 requirements with no deficiencies is passing, minor deficieiencies in 2 requirements is level 1, etc.).
	This standard should absorb the 32 hours of emergency training.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

A requirement has been added to the standard to address the 32 hours of emergency training.

The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

NERC has provided a list of generic tasks for common operator positions to the industry, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific utilityentity may perform. Therefore you, each entity must complete a company-specific analysis to

Commenter	Comment
	determine the required training.
Ron Gunderson; NPPD (1)	The standard should be boiled down to the core training requirements (develop a program, deliver training [including and consistent with CEH], record and assess progress, adjust the program annually). It would be simpler if this standard were measured globally (3 of the 4 requirements with no deficiencies is passing, minor deficieiencies in 2 requirements is level 1, etc.).
	We agree that training is very important, but importance is not the same as the risk. Depending on how this standard is read, there appear to be 40 different things for which non-compliance can be assessed (and almost all of them are rated at medium or high risk). Deviating from a template training design does not put the Interconnections at risk of cascading. The standard as a whole should be evaluated at a lower risk.
	This standard should absorb the 32 hours of emergency training.
	Alternatively, this standard could lay out a way to evaluate "certified training providers".

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

A requirement has been added to the standard to address the 32 hours of emergency training.

| SPP OTWG (1,2) | We would prefer to see some examples of quality JTAs. We believe it's necessary to have some benchmark standards that can be used across the industry.
This standard would require an unrealistic amount of record keeping, considering current staffing. Few entities have the resources, staff, and time to meet the demands of this standard. |

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

NERC has provided a list of generic tasks for common operator positions to the industry, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator at a specific ~~utility~~entity may perform. Therefore ~~you~~, each entity must complete a company-specific analysis to determine the required training. ~~revised standard with SAT process.~~

| SCE&G ERO WG (1, 3, 5) | A standard list of reliability related tasks with corresponding minimum requirements should be developed for R1.1 through R1.7 to allow the applicable parties to prevent unnecessary expenditures and poor use of resources and time. This would benefit all parties involved. It also should allow smaller organization to contract with third parties to write plans for them if necessary using a standard approach. It should allow all of us to take the guess work out of what is intended by the requirements. |

Response: NERC has provided a list of generic tasks for common operator positions to the industry, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html). A generic analysis will not address all the reliability related tasks that a System Operator

Commenter	Comment
at a specific ~~utility~~entity may perform. Therefore ~~you~~, each entity must complete a company-specific analysis to determine the required training.	

During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. ~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology~~.

Commenter	Comment
PJM (2) ISO/RTO Council (2) ISO-NE (2)	PJM (IRC) (ISO-NE) recognizes and supports the need for and the value of developing system operator Training plans, and of maintaining and implementing those plans. PJM (IRC) (ISO-NE) also recognizes that owing to the diverse system characteristics, varying operating systems and multitude of operating procedures used by the subject responsible entities, that the Training Programs used to effect those Training plans are not and cannot be standardized. Violations Risk Factors PJM (IRC) (ISO-NE) does not agree that the SDT correctly interpreted the definitions of the Violation Risk Factors; and does not agree with the factors proposed. Training Program Accreditation Rather than attempting to proscribe what must be included in every program, PJM (IRC) (ISO-NE) suggests that the SDT consider creating a System Operator Training Accreditation Program. PJM (IRC) (ISO-NE) suggests the SDT consider revising the Standard to simplifiy the standard to mandate: - Responsible entities have a System Operator Training Plan - Responsible entities use accredited Training Programs to implement those plans PJM (IRC) (ISO-NE) further suggests that the details proposed in the current standard be drafted into a Technical Reference Guide that could serve as the basis for the Accreditation program.

Response: The SPTSDT agrees with the comment that the requirement should not be considered a High risk factor and has revised the risk factor to Medium.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

The SPTSDT has significantly revised the standard based on industry feedback.

Commenter	Comment
Southern Co (1,3,5,6)	Southern Company does not believe this Standard is necessary since PER-002 could be revised to include certain components of this proposed standard. However, if the development of this standard continues, we make the following comments: Requirement 4 is essentially a duplicate of PER-002, Requirement 2. Requirements 4.1-4.4 are essentially duplicates of PER-002, Requirements 3.1-3.4. Requirement 5.1 and 5.2 are very close to PER-002, Requirement 3.4. If you remove these duplications, the SDT may not be left with enough

Commenter	Comment
	substance to build a standard around.
	Under Requirement 1, recommend changing the name of System Operator job task analysis to System Operator Job Description.
	Job Performance Appraisals should be an acceptable method for meeting Requirement 8.1.
	Does the 32 hours of emergency operations training specified in Requirement 6.5.1 count toward the 5 days of training required for PER-002, Requirement 4?
	The primary emphasis of this standard seems to rely on the process and not about measuring whether or not operators are properly training.
	R5 - The term "systematic approach" is used but no direction or expectation is provided in the standard on what is acceptable.
	R6.5.2 - The requirement expressed here is too prescriptive and in some cases probably not practical. If this requirement is ultimately considered appropriate, it should be done as part of EOP-005 R6 and not inserted here as part of a general training standard. The same argument could be made for R6.5.1 as well.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

The SPTSDT has significantly revised the standard based on industry feedback.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

A requirement has been added to the standard to address the 32 hours of emergency training.

Commenter	Comment
Richard Appel; Sunflower Electric Power Co (1,3,5)	This standard will require additional staff and many man hours to implement. Most utilities don't have the man power to inplement this. Where are these people coming from.This is not needed at this time.As we have PER-002.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

Commenter	Comment
SRP (1)	This standard will require more Staff to meet requirements thereby increasing the cost of providing power to our customers with little benefit for these customers.
	Requirement 1 - "maintain" may be a better choice that "conduct" a System Operator JTA…
	Requirement 5.1 and 5.2 are truly just headings (not requirements) and should be eliminated. The others in this section (R5.1.1, R5.1.2, and R5.2.1) could be renumbered to R5.1-R5.3.
	It may be beneficial to define some terms associated with this standard. What is meant by "critical task", "training plan", and other intermediate levels of tasks?
	This standard was reviewed by a Transmission Operations Manager, Generation Operations Manager, Training Supervisor, and 2 Training Analysts. While some effort was made to arrive at consensus, some variety was left in tact for the drafting team to consider. It may be more

Commenter	Comment
	beneficial to obtain a variety of perspectives without too many edits for the sake of maintaining a unified voice from one company. The drafting team needs to see the variety of perceptions as individuals read through this standard.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

The SPSDT has removed Requirement 5, on trainer qualifications.

The SPSDT agrees with your comment on criticality and has removed the references to criticality from the requirement. The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

Commenter	Comment
Edward J. Carmen; Baltimore Gas & Electric (1)	R6.5.2 requires all real-time operating positions to participate in at least one multi-entity exercise per year. BGE is a member of PJM. PJM currently conducts 2 Restoration drills per year. BGE includes as many operating personnel as possible in these drills, however, it is not feasible to include all operating positions.
	BGE recommends revising this requirement to read: "involving as many real-time operting positions as possible..........and, ensure that all operating positions participate in these drills at least once every 5 years".

Response: The SPTSDT has removed this requirement.

Commenter	Comment
Ed Davis; Entergy Services (1)	Entergy Transmission agrees with the SAR requirements for developing this standard. The SAR requires a systematic approach be used to identify training needs and to conduct the training. The SAR also requires responsible entities have evidence that each of its real-time system operators is competent to perform each assigned task.
	Entergy's suggested changes contained herein are intended to make this draft standard better conform to the SAR requirements.
	We believe this draft standard is overly prescriptive in its detailed requirements for how the responsible entities implement a systematic approach to training. We also believe this draft standard is overly prescriptive in the detailed process, information and documentation entities must follow to meet the requriements of this draft standard.
	We also request that, in all locations in the standard, the criteria for being QUALIFIED TO PERFORM A TASK should be specified in the draft standard, replacing - criteria for SUCCESSFUL PERFORMANCE.
	The authors of this questionairre did not ask any questions, nor did they provide a place to comment on R6 which requires the implementation of the training program. We suggest R6.1 though R6.4 are overly proscriptive and should be deleted. Also, R6.5.2 requiring at least one exercise each year involving all real-time operating positions should be deleted as being too high a risk factor for the continued real-time reliability of the BES and would involve significant time and effort for the expected gain in operational experience.

Commenter	Comment
	We are concerned about the broadbrush requirements placed on the responsible entities concerning the training of System Operators under contract or under delegation agreement. This draft standard implies that the responsible entities are responsible for conducting a training needs assessment (R3), implementing its training program (R6), and tracking the progress of each of the operators (R8) for each of the operators under contract or under delegation agreement. We suggest the responsibility for training be assigned to either the contractor or the responsible entity, depending on the content of the training required (training about general power systems, or training concerning the responsible entity's specific system) and which entity is performing a specific task. First, the contractor under delegation agreement (not the responsible entity) should be responsible for training its employees about general power systems and tasks associated with the the specific system knowledge for the responsible entity; the responsible entity should not be measured nor held in compliance for delegated tasks. Second, the contractor employing system operators (not the responsible entity) should be responsible for training the contractor employees about general power systems, while the responsible entity should be responsible for training the contract system operator about the specific system knowledge for the responsible entity. We suggest the draft standard be revised to reflect these training responsibility concepts. We will agree with the Applicability statement in the Implementation Plan concerning contract employees and delegation agreement employees given the changes are satisfactorily made in the standard.

Response: The SPTSDT has significantly revised the standard based on industry feedback.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

Based on stakeholder feedback the standard has been reworded such that the successful performance is determined using the systematic approach to training by the entity.

Commenter	Comment
FPL (1,3,5)	Requirement R6.5.2 needs to be deleted. Joint training exercises can be beneficial, but to mandate these at this time is not justifiable. The requirement is inappropriate since it would put an entity's compliance with the requirement, subject to cooperation by another entity. Language requiring a training needs assessment of System Operators performing task identified in R1 under delegations agreements is extremely burdensome. As an example, a neighboring company may be performing the regulating function of an entity, since some form of regulation will be identified in the JTA - the entity will be forced to perform a training needs assessment on that company performing regulation service to determine if their operators can successfully perform the tasks identified in the JTA - even if those operators are being trained by there own company. We therefore, disagree with the use of the parenthetical expression (including any contract System Operator or System Operator performing tasks identified in R1. under delegation agreements). The use of this caveat throughout the standard creates confusion and ambiguity in that it makes the requirements difficult to read and dilutes clarity.

Response: Requirement 6.5.2 has been removed from the revised standard.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of

Commenter	Comment
Julie Tate; Progress Energy (1,3,5)	Overall, Progress Energy agrees that the Initial and continuing training plans should be tailored to the System Operator job function as identified from the job task analysis. However, it appears the inidividual GAP analysis requirements of the proposed standard are beyond the INPO training model for nuclear reactor operators. Progress Energy recommends that during initial and continuing training, gaps in performance versus the system operator job function expectations can be identified, especially in simulator exercises. From this identificaiton of gaps in performance expectations identified in continuing training, remedial training (refresher training) can take place immediately in the training session to ensure learning takes place, individual performace meets the job funtion requirments, and most importantly the gap is addressed immediately. To be consistant with the INPO training model, there is no need for a formal individual gap analysis to be conducted annually outside of the continuing training process. Also, if a gap is identified in this proposed standard's required annual assessment, the standard does not require the operating entity which has identified the gap to provide any immediate remedial action and thus the operating entity is creating a litigation issue.

Response: The SPTSDT has revised the requirement to focus on positions, as opposed to individual or team performance.

During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

John Bussman:AECI (1,5,6)	This procedure is to restrictive. If a company can show that there are procedures in place that show how operators are trained to maintain the BES than we shouldn't have to prepare a Job Task Analysis and maintain it. There is more than one way to ensure operators are trained. I was not a Nuclear operator, however, I don't recall that job task analysis's are prepared. The operators are trained on a simulator over a 6 month period and then follow procedures when in the field. I do not believe there are JTAs. I think preparing what this standard states would overburden a company that has a process in place to ensure an operator is properly trained to maintain the BES under all conditions. A second comment is that PER-002 request that the RRO and NERC define a set of training program ojectives. Is SERC also going to have a set of stanards the entities must follow. Again this stanard is very restrictive.

Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

The SPTSDT has significantly revised the standard based on industry feedback.

Commenter	Comment
	The regional requirements are outside the scope of this standard.
John Kerr; GRDA	Examples, explanations and studies should be conducted first. Most of this standard would put a burden on all entities.
Response: During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The SPTSDT will consider conducting a workshop.	
Jim Sorrels; AEP (1)	The Standard Drafting Team needs to be careful to not include verbiage in the Requirements and Measures that could lead to entities having to provide an individual's job performance evaluation as part of the documentation for training. These are private and confidential personnel records that should not become part of public record.
	This proposed standard needs additional work. AEP continues to agree conceptually with the purpose of the proposed standard and the need for such a standard. We would suggest that the drafting team take another hard look at what should be considered requirements and what are just good guidelines. The standard needs to focus on requirements. Presently, we believe it contains a significant amount of detail that should be considered guidelines, not requirements.
Response: The SPTSDT has revised the requirement to focus on positions, as opposed to individual or team performance. During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.	
Gerald LaRose; NYPA (1)	The phraseology "including any contract System Operator or System Operator performing tasks identified in R1 under delegation agreements" (R3, R6, R8) has in some instances been interpreted as applying to System Operators in a Local Control Center and in other instances to field personnel who perform SCADA-controlled or manual switching functions. The NERC Functional Model, as best as I know, contains no such reference. If the Drafting team is proposing that these Requirements extend beyond the what is in the Functional Model, e.g., RC and TOP, it should succinctly state such in a manner that will cause no confusion when the balloting commences.
Response: The "including any contract System Operator or System Operator …" has been removed from the requirement. The standard is applicable to the three functional entities, TOP, BA, RC and those personnel performing reliability-related tasks on behalf of those entities. The SPTSDT has revised section 4.2 (under Applicability) concerning the responsibilities.	
NPCC CP9 (1, 2)	NPCC Participating members believe this Standard is focused on the training program and not on the purpose of training. It is not important that an entity has a training program, rather it is vital that the entity has an effective training program, and one that is measurable by NERC.
	The Proposed Standard defines actions the entity must take but it does not define a performance measure that is tied to improving System Operator competency. For instance, if a gap is identified and training is provided, then the entity has met the proposed Standard's requirements. But there is no assessment of successful training or poor training. Whether a gap is closed or remains after training does not matter to this Standard.
	This Standard should be limited to a requirement for the entity to identify and document required skills, a requirement to define an

Commenter	Comment
	acceptable time period to acquire the skill, a method of documenting the Operator's skill, a method to reassess the Operator's skill if a gap was measured, and removal from Operation if a gap persists.
	The proposed NERC Standard is too keen on documentation of lesson plans, and not sharp enough on defining valuable objectives. Specific comments are:
	1.　　R1. What is a Job Task Analysis? Needs to be defined. There is a difference between a list of tasks the Operator performs and a step by step instruction of performing the tasks.
	2.　R1.1 Needs to be more specific. What is meant by conditions?
	R1.2 This needs to be defined for the level of specificity required.
	R1.4. I think all real-time reliability related tasks are equally critical. The SDT should otherwise define levels of criticality criteria.
	R1.5 What is the SDT looking for in frequency definition? How is it defined?
	R1.6 Knowledge, skill and experience levels are not needed for JTA. All system operators, regardless of experience levels, should be able to perform reliability tasks.
	3.　　R4 This does not belong in a Standard. The details are the responsibility of the entity.
	4.　　R 6.2 How many hours of continuing training is required.
	R6.3 The word "Requirement" should not be spelled out.
	R6.4 Is not needed. Seems a repeat of R6.3
	R6.5.1 Is the PER-002 R4 requirement going to be deleted?
	5.　　R7. Training , the hours of training, the method of delivery, and objectives do not need to be documented to have a successful training program. Suggest eliminating this requirement.
	6.　　R8. Training should be performed until an Operator is competent in a task.
	7.　　R10- Not needed in a Standard.

Response: The SPTSDT has significantly revised the standard based on industry feedback.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised R1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

Conditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.

The SPTSDT does not understand the comment on R1.2. Please clarify.

The SPSDT agrees with your comment on criticality and has removed the references to criticality from the requirement.

The SPTSDT agrees your comment on Requirement 1.5 (frequency of performing the task) and has removed that requirement.

Requirement 4 has been revised to reflect position, not individual System Operators removed.

Requirement 6 has been revised to remove the sub-requirements removed. The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved

Commenter	Comment
	activities. ~~The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.~~ ~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~ During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The SPTSDT plans to recommend retiring PER-002. R~~equirement~~ 7 has been ~~modified and the sub-bullets have been~~ removed. With respect to R~~equirement~~ 8 has been removed.~~, the SPTSDT agrees with your comment~~. With respect to your comment on R~~equirement~~ 10, the SPTSDT agrees and has removed the requirement.
Roger McBeth; Northeast Utilities (1)	This standard will require a huge investment for creating a formal Job Task Analysis Database/Document to meet requirement R1.1 - R1.7 and there will still be the cost of developing the training materials. To manage such a JTA Database will require purchasing a costly Learning Management System. Most organizations are not currently staffed to manage such an undertaking and there is not a large source of system operators with the training experience to complete all aspects of this standard. From my own personal experience in the nuclear industry, I was part of a 3 person training staff prior to implementing the Systematic Approach to Training at a commercial nuclear power plant in 1984. There was a steep learning curve and a significant increase in staffing to support the administrative requirements. INPO provided a generic task list and job task analysis. We were required to perform a company specific Job Analysis/Job Task Analysis and develop training material using the results of the Job Task Analysis. This effort took close to a year using a 20 person contractor staff and we ultimately hired an additional 11 full time instructors to support the operator training program. We stopped all formal training programs during the performance of the JA/JTA and placed a significant demand on operator's time to serve as subject matter experts to support the JA/JTA and provide technical reviews for training material.
	Response: The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training is not prescribed in the revised R1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~ Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost. In response to your request for examples of reliability-related tasks, NERC has provided a reference document, Generic System Operator Task List (http://www.nerc.com/~filez/standards/System-Personnel-Training.html).
Ron Falsetti; IESO (2)	The IESO appreciates the opportunity to comment, and commends the drafting team for its breath of consideration in coming up with this draft standard. However, we feel that the standard can better focus on the key requirements for training. (1) We feel that the standard should focus on the following 4 key requirements to hold each of the three operating entities (RC, BA and TOP) responsible for: a. Developing a training program which lists the tasks (specifically for the RC, BA and TOP as listed in the Functional Model) to be performed and the competency level required to perform the tasks; b. Delivering the training program; c. Recording, tracking and assessing progress of the persons receiving

Commenter	Comment
	training;
	d. Planning, providing resource, reviewing and adjusting (as necessary) the training program annually.
	(2) Individual organizations may require the operators to perform other tasks but such tasks and the corresponding training requirements are outside of the scope of an industry-wide NERC standard from the viewpoint of the tasks assigned to the three functional entities. The training requirements to perform these other tasks should not be included in this standard.
	(3) Some of the items listed in R1.1 to R1.7 support the job/task description. They can be put as attachment template requirements that the training program shall include, and to aid assessment of compliance. Similarly. some of the items listed in R7 can be put into a template as requirements to prove delivery of the trainiing program.
	4. Based on the above philosophy, we recommend the SDT to consider revising the draft standard as follows:
	(i) Keep R1 (for Key Requirement 1a above) and revise it as appropriate to require each of the 3 entities to develop a training program for their operating staff to perform the task associated with the entity's registered function; put some of R1.1 to R1.7 to a template attachment;
	(ii) Combine R2, R3, R4, R9 and R10 (for Key Requirement 1d above) to become a requirement for an annual planning, review, and maintenance exercise for the training program.
	(iii) Keep R6 (for Key Requirement 1b above), and put some of the items in R7 in a template attachment for proof of training delivery.
	(iv) Keep R8 (for Key Requirement 1c above), and revise it as appropriate.
	(v) Remove R5

Response: The SPTSDT agrees that the element identified is important and are encompassed in the revised standard. The SPTSDT has significantly revised the standard based on industry feedback. The standards addresses the core SAT phases.

The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. -The SPTSDT revised the requirement such that the methodology used to perform the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

The SPTSDT has combined R2 and R3 and removed Requirement R4, R5, R6, R7, R8, R9, and R10 from the revised standard.

The SPTSDT has removed Requirement 5 and Requirement 8.

| Gordon Rawlings; BCTC (1) | There was no question directly associated with R6 to allow comments. Requirements R4 and R6 address similar training areas with the primary difference being R4 is for the "annual training plan" and R6 is the "implementation" of the training plan. It is difficult to write NERC standards but some of the Standards repeat the same words just in a different context. Can the drafting team look at combining R4 and R6 into a single requirement addressing the separate issues of an annual training plan and the associated implementation of the plan? Separate Measures could be written to address these two areas even though they |

Commenter	Comment
	are contained within a single Requirement.
	BCTC supports a requirement for development, delivery, and evaluation of system operator training using a "systematic approach to training" as required in this Standard. Even though a specific principle of a systematic approach to training makes it more effective, that doesn't mean that principle should be part of a mandatory reliability standard. A reference document describing many of the "how" to do a quality job of using the systematic approach would be helpful. Some of our comments to remove parts of the Standard may fit well within a reference document that is not used to judge compliance.
	This standard may be the single most expensive standard to come from NERC for the electrical industry. It is important to ensure the words are clear and we know what is expected and not open to interpretation. We believe it also important to test this standard in industry to ensure it will work for its intended purpose. BCTC would request NERC to take the time to ensure the administrative requirements are gradually introduced and they do not take away time from training efforts already ongoing. The industry has been working through Certification and Continuing Education requirements that have been refined over the past 3 years and these requirements have been good to ensure training efforts and requirements get better within our industry. We hope that you will come back with a standard that is simple to understand not burdonsome on us to follow on top of the training requirements for CE and all the other efforts ongoing.

Response: The SPTSDT has removedmodified Requirement 4 based on stakeholder feedback. Requirement 6R4 and R6 has been removed

The SPTSDT has significantly revised the standard based on industry feedback. The standards addresses the core SAT phases.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for system operators that meets minimum standards may incur additional cost.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

Hydro One Networks (1)	In general, it is a good idea to be more prescriptive in training requirements but this standard is too prescriptive.
	-Greater understanding of the required detail pertaining to the JTA requirement in R1 is needed. Normally there are 3 requirement associated with learning objectives; action, conditions, and standard… not the 7 items listed R1.1 through R1.7.
	-R6.5.2 may be impossible to implement for every operator annually.
	-A clearer understanding of "reliability-related" and R1.4 "Criticality of the task with respect to reliability" is needed as this is open to subjective interpretation.
	-The activities listed in R7 may not all be applicable for each activity used to support reliability-related training.

Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

Commenter	Comment
	The SPTSDT has revised the standard and Requirement 6.5.2 has been removed.
	The SPSDT agrees with your comment on criticality and has removed the references to criticality from the requirement.
	The SPTSDT has ~~revised the standard and the~~removed R7.~~ sub-bullets have been removed.~~
	The SPTSDT has added a paragraph in the Introduction section of the standard to clarify the meaning of reliability-related training..
FirstEnergy (1,3,5,6)	FE would like to request NERC consider providing industry wide web based software support for the the job task analysis requirement. Software is available and used by the nuclear industry that would be useful and benefical to completing the job task analysis requirement of this standard.
Response: The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~	
Alan Adamson; NYSRC (2)	This Standard is overly broad and vague. This Standard is focused on the training program and not on the purpose of training. It is not important that an entity has a training program. Rather, it is vital that the entity has an effective training program, and one that is measurable by NERC.

The Proposed Standard defines actions the entity must take, but it does not define a performance measure that is tied to improving System Operator competency. For instance, if a gap is identified and training is provided, then the entity has met the proposed Standard's requirements. But there is no assessment of successful training or poor training. Whether a gap is closed or remains after training does not matter to this Standard.

This Standard should be limited to a requirement for the entity to identify and document required skills, a requirement to define an acceptable time period to acquire the skill, a method of documenting the Operator's skill, a method to reassess the Operator's skill if a gap was measured, and removal from Operation if a gap persists.

The proposed NERC Standard is too keen on documentation of lesson plans, and not sharp enough on defining valuable objectives. Specific comments are:

1.   R1. What is a Job Task Analysis? Needs to be defined. There is a difference between a list of tasks the Operator performs and a step by step instruction of performing the tasks.

2.   R1.1 Needs to be more specific. What is meant by conditions?
R1.2 This needs to be defined for the level of specificity required.
R1.4. I think all real-time reliability related tasks are equally critical. The SDT should otherwise define levels of criticality criteria.
R1.5 What is the SDT looking for in frequency definition? How is it defined?
R1.6 Knowledge, skill and experience levels are not needed for JTA. All system operators, regardless of experience levels, should be able to perform reliability tasks. |

Commenter	Comment
	3. R4 This does not belong in a Standard. The details are the responsibility of the entity. 4. R 6.2 How many hours of continuing training is required. R6.3 The word "Requirement" should not be spelled out. R6.4 Is not needed. Seems a repeat of R6.3 R6.5.1 Is the PER-002 R4 requirement going to be deleted? 5. R7. Training, the hours of training, the method of delivery, and objectives do not need to be documented to have a successful training program. Suggest eliminating this requirement. 6. R8. Training should be performed until an Operator is competent in a task. 7. R10- Not needed in a Standard.

Response: The SPTSDT has significantly revised the standard based on industry feedback.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training. The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.

RConditions for task performance are necessary to ensure proper training and assessment methods and settings are used. The SPTSDT has revised the requirement to further clarify the meaning of condition.

The SPTSDT does not understand the comment on R1.2. Please clarify.

The SPSDT agrees with your comment on criticality and has removed the references to criticality from the requirement.

The SPTSDT agrees your comment on Requirement 1.5 (frequency of performing the task) and has removed that requirement.

Requirement 4 has been been revised to reflect position, not individual System Operatorsremoved.

Requirement 6 has been revised to remove the sub-requirementsremoved. The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. . The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements.The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.

During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The SPTSDT plans to recommend retiring PER-002.

Requirement 7R7, R8, and R10 have been removed from the revised standard. has been modified and the sub-bullets have been removed.

With respect to Requirement 8, the SPTSDT agrees with your comment.

With respect to your comment on Requirement 10, the SPTSDT agrees and has removed the requirement.

Commenter	Comment
Brian Thumm; ITC (1)	It appears that this standard will result in the need for more personnel being assigned and trained in how to be a Operations Trainer. Therefore the Implementation plan may need to be as long as five years to allow for this build-up of experience and knowledge in the training areas of companies. Finally, the standard's stated purpose is to ensure that system operators are competent to perform their real-time, reliability-related tasks. The standard focuses almost entirely on the documentation requirements for program elements, but offers little to no assurance that real-time operators remain competent in their duties. The standard requires the

Commenter	Comment
	training program to be well documented, but the standard falls short on performance-based metrics for a successful training program.

<table>
<tr><td colspan="2">Response: Based on stakeholder feedback, the implementation plan has been lengthened to three years and the dates were removed. Phase 1 is 18 months; Phase 2 is 30 months; and Phase 3 is 36 months.

The SPTSDT agrees with the comment that only specific tasks that are considered critical to reliability should be considered and has revised the requirement to include analysis that considers only reliability-related tasks by System Operator positions.

The SPTSDT has added a requirement to the standard necessitating that each entity provide evidence that each of its real-time System Operators is competent to perform each assigned task that is on the list of reliability-related tasks. The SPTSDT has added a paragraph in the Introduction section of the standard to clarify the meaning of reliability-related training.</td></tr>
</table>

Commenter	Comment
Brian Tuck; BPA (1)	Requirements R4 and R6 address comparable training areas with the primary difference being that R4 is the "annual training plan" and R6 is the "implementation" of the annual training plan. BPA suggests the drafting team combine R4 and R6 into a single requirement addressing the separate issues of an annual training plan and its associated implementation. Separate Measures could be written to address these two areas even though they are contained within a single Requirement.

BPA agrees with the requirement for annual refresher training on high reliability tasks (R6.5), and the inclusion of the 32 hour emergency operations requirement (R6.5.1) in this standard. While acknowledging the benefit of participation in regional exercises, BPA believes the requirement that all system operators participate in a regional exercise "involving all real-time operating positions likely to be involved in the actual event, with each person performing their assigned duties." (R6.5.2) is excessive and does not provide benefit commensurate with the development cost on an annual basis. BPA suggests removing requirement R6.5.2.

BPA supports a Standard requiring development, delivery, and evaluation of system operator training using a "systematic approach". However, a mandatory reliability standard with economic sanctions should address the essental elements needed to comply with the Standard and not become too prescriptive in the implementation of the requirements. BPA applauds the restraint the drafting team has shown by making the effort to include only the essential elements of a systematic training program.

Finally, BPA thanks the drafting team for your dedicated concern and efforts to improve our industry by helping entities develop valuable and effective training programs for system operators. |

<table>
<tr><td colspan="2">Response: The SPTSDT has removed R4 and R6 from the revised standard.revised the standard and Requirement 4 and Requirement 6 have been moved. Requirements 6.5.1 and 6.5.2 have been also removed.

The SPTSDT has significantly revised the standard based on industry feedback. The standards addresses the core SAT phases.

A requirement has been added to the revised standard to address the 32 hours of emergency training.</td></tr>
</table>

Commenter	Comment
MRO (1,2)	The MRO believes that as long as this standard is not in conflict with other standards that require hours of emergency training (i.e. PER-003), then it is fine; however care needs to be taken to prevent these conflicts from arising in the future.

<table>
<tr><td colspan="2">Response: PER005 will replace PER002 and portions of PER004. Please see the implementation plan.</td></tr>
</table>

Commenter	Comment
Will Franklin; Entergy (6)	R6 seems to exist only to state that one must 'implement' the plan developed in R4. This unecessarily clutters the standard. It would be more concise to state in R4 that one must 'develop and implement' an annual training plan.
	Thanks for the opportunity to provide input on the development of the standard. In general, we support the principle of developing more structured guidelines for operator training.

Response: The SPTSDT has revised the standard and R~~equirement~~ 4 and R~~equirement~~ 6 have been moved.

Commenter	Comment
Allen Klassen; Westar (1)	R6.5 needs to be revised. Why maintain the 32 hour requirement which was arbitrarily "pulled from the air" as a reaction to the blackout, if the training program is developed and evaluated as required, arbitrary specified hours should not be required. R6.5.2 requires coordination and development of exercises that can not be completed by an individual entity (how can they be held to compliance if their neighbor fails to particpate, etc?). To complete this requirement annually for every operator at every entitity you better schedule an exercise every week, much too excessive, try every three years for each operator or maybe this is already covered by Continuing Education for Certification.

Response: While the Training Standard Drafting Team agrees with the logic of the argument, the 32 EOP hour requirements was maintained due to lack of evidence that it is unreasonable.

The CE Program is not a part of this standard. The standard applies to all reliability-related training, not just NERC CE approved activities. The SPTSDT believes this standard's requirements do not conflict with the CE Program's requirements. ~~The SPTSDT believes there is nothing in this standard that conflicts with the CE Program requirements.~~

Commenter	Comment
Michael Gammon; KCP&L (1)	Do not agree with all the requirements in R6 as stated below:
	R6. Each Reliability Coordinator, Balancing Authority and Transmission Operator shall implement its System Operator training program by providing training to all of its System Operator (including any contract System Operator or System Operator performing tasks identified in R1 under delegation agreements) as follows: [Risk Factor: High]
	R6.1. Entry-level training to provide System Operator with the knowledge and skill identified in R2 to meet the associated criteria for successful performance identified in R1.7.
	R6.2. Continuing training to reinforce knowledge and skills of incumbent System Operators as identified in the JTA (Requirement 1) that ~~were not covered in Requirement 4.2~~ meet requirements R4.2 to R4.4. (Everything the incumbent Operator needs is identified by R3 and specified in R4. There should not be anything that is not covered by this standard.)
	R6.3. Refresher training to eliminate performance gaps identified by the training needs assessments in by the JTA (Requirement 1) and ~~Requirement 2, and~~ Requirement 4.2 ~~3~~.
	R6.4. Continuing training to acquire the knowledge and skills necessary for new or modified tasks and tools identified in R1 and R2 ~~and R3~~.
	R6.5. Annual refresher training for incumbent System

Commenter	Comment

	Operator that includes the use of drills and simulations on tasks that have high reliability-related criticality (as identified in R1.4) and low frequency of occurrence (as identified in R1.5) to meet the associated criteria for successful performance identified in R1.7. This refresher training shall include:
	
	  (This requirement is already in Reliability Standard PER-002, R4 and is not necessary to be repeated in this proposed standard.)
	R6.5.2. If sub regional, regional or interconnection-wide system exercises are available, at ~~At~~
	        least one exercise each year shall involve other entities on a sub-regional, regional or
	interconnection-wide basis, involving ~~all~~ the appropriate real-time operating positions likely to be involved in the actual event, with each person performing their assigned duties. (It is inappropriate to require an organization to do something that is entirely out of their control. What if no there are no sub regional or regional activities available? It should be left up to the companies involved to determine the extent of an exercise.)

Response: The SPTSDT has R6 from the revised standard~~revised the standard and removed the sub-requirements from Requirement 6.~~

PER005 will replace PER002, ~~please~~ as described in the ~~see the~~ ~~l~~implementation ~~P~~plan.

WECC OTS (1,2)	There was no question directly associated with R6 to allow comments. Requirements R4 and R6 address comparable training areas with the primary difference being R4 is for the "annual training plan" and R6 is the "implementation" of the annual training plan. Too many NERC and regional standards seem to say the same thing over and over with the only material difference being context. OTS suggests the drafting team combine R4 and R6 into a single requirment addressing the separate issues of an annual training plan and the associated implementation of the plan. Separate Measures could be written to address these two areas even though they are contained within a single Requirement. The OTS is the principle group in the Western Interconnection to support the WECC training program and providing support to the trainers in the West. OTS believes that quality training can and should result in quality System Operators and improved system reliability. Quality training doesn't just happen, it requires analysis and process. OTS supports a requirement for development, delivery, and evaluation of system operator training using a "systematic approach to training" as required in this Standard and as endorsed by the FERC. However, a mandatory reliability standard with economic sanctions should address the essential elements and not become too prescriptive in its requirements. The drafting team has shown restraint since early versions of the SAR and removed many requirements. Even though a specific principle of a systematic approach to training makes it more effective, that doesn't mean that principle should be part of a mandatory reliability standard. A reference document describing many of the "how" to do a quality job of using the systematic approach would be helpful. Some of the OTS comments to remove parts of the Standard would fit well within a reference document that is not used to judge compliance. OTS requests the drafting team provide detailed responses to the comments expressed in this form and in accordance with the spirit of the standard drafting process.

Commenter	Comment
	Finally, OTS thanks the drafting team for your dedicated concern and efforts to improve our industry by helping entities develop valuable and effective training programs for system operators.

Response: The SPTSDT has revised the standard and R~~equirement~~ 4 and R~~equirement~~ 6 have been moved.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

During the development of the SAR for this standard, most stakeholders agreed that there is a reliability-related need for a new training standard. The standards addresses the core SAT phases.

Improvements in industry training are warranted based on findings from the '03 Blackout Report and subsequent determination from FERC (Order 693). Developing and maintaining training for System Operators that meets minimum standards may incur additional cost.

~~Thank you for your support.~~

Commenter	Comment
FRCC SO Subcommittee (1,2,5)	Requirement R6.5.2 needs to be deleted. Joint training exercises can be beneficial, but to mandate these at this time is not justifiable. The requirement is inappropriate since it would put an entity's compliance with the requirement, subject to cooperation by another entity.
	Language requiring a training needs assessment of System Operators performing task identified in R1 under delegations agreements is extremely burdensome. As an example, a neighboring company may be performing the regulating function of an entity, since some form of regulation will be identified in the JTA - the entity will be forced to perform a training needs assessment on that company performing regulation service to determine if their operators can successfully perform the tasks identified in the JTA - even if those operators are being trained by there own company.
	We therfore, disagree with the use of the parenthetical expression (including any contract System Operator or System Operator performing tasks identified in R1. under delegation agreements). The use of this caveat throughout the standard creates confusion and ambiguity in that it makes the requirements dificult to read and dilutes clarity. If the DT has a concern they should address it explicitly through a proposed definition or adding a caveat to the applicability section. Conceptually does the caveat imply that an entity will be responsible for tracking the training activities of another entity that it may have delegated a tasks to? If this is the intention, it will lead to significant confusion from a compliance measurement standpoint as far as an entity demonstrating compliance to the requirement by having to audit another entity's training records / program and demonstrate compliance on behalf of multiple entities.

Response: The SPTSDT has revised the standard such that R 6.5.2 has been deleted.

The SPTSDT agrees with the comment that the methodology used to perform the analysis phase of systematic approach to training should not be dictated. The SPTSDT revised the requirement such that the methodology used to perform and the information collected during the analysis phase of systematic approach to training are not prescribed in the revised Requirement 1. Rather, the requirement identifies the phases of the SAT process that must be included in the development of the training.~~The drafting team has revised the requirements to reflect the outcomes of the analysis, rather than prescribing the methodology.~~

Commenter	Comment
	~~The SPTSDT has revised the Requirement 1 and removed parenthetical statement.~~

Comment Form — Standard PER-005 – System Operator Training

Please use this form to submit comments on the second draft Standard PER-005 – System Operator Training. Comments must be submitted by **September 1, 2007**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "System Operator Training Standard" in the subject line. If you have questions please 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
☐ **ERCOT**	☐	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs and ISOs
☐ **MRO**	☐	3 — Load-serving Entities
☐ **NPCC**	☐	4 — Transmission-dependent Utilities
☐ **RFC**	☐	5 — Electric Generators
☐ **SERC**	☐	6 — Electricity Brokers, Aggregators, and Marketers
☐ **SPP**	☐	7 — Large Electricity End Users
☐ **WECC**	☐	8 — Small Electricity End Users
☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
	☐	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, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

Background Information:

The System Operator Training standard is deigned to help ensure that System Operators who work for Reliability Coordinators, Balancing Authorities, and Transmission Operators are provided with training to promote the reliability and adequacy of the North American interconnections and their bulk power systems.

The proposed standard allows each Reliability Coordinator, Balancing Authority, and Transmission Operator to use a valid approach in determining its system operator's training needs and then in developing and delivering training that meets those individual training needs to support reliable bulk power system operations.

The System Operator Training Drafting Team would like to receive industry comments on this group of standards. Accordingly, we request that you include your comments on this form and e-mail to sarcomm@nerc.net with the subject "System Operator Training" by **September 1, 2007**.

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. <mark>Question 1</mark>? **If not, please explain in the comment area.**
   ☐ Yes
   ☐ No
   Comments:

2. <mark>Question 2</mark>? **If not, please explain in the comment area.**
   ☐ Yes
   ☐ No
   Comments:

3. <mark>Question 3</mark>? **If not, please explain in the comment area.**
   ☐ Yes
   ☐ No
   Comments:

4. <mark>Question 4</mark>? **If not, please explain in the comment area.**
   ☐ Yes
   ☐ No
   Comments:

5. <mark>Question 5</mark>? **If not, please explain in the comment area.**
   ☐ Yes
   ☐ No
   Comments:

6. <mark>Question 6</mark>? **If not, please explain in the comment area.**
   ☐ Yes
   ☐ No
   Comments: