

Conference Call Agenda Five-Year Review of FAC Standards

July 17, 2013 | Noon-4 p.m. Eastern

Dial-in: 866.740.1260 | Access Code: 6191629 | Security Code: 071713

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Administrative

1. **NERC Antitrust Compliance Guidelines, Public Announcement, Participant Conduct Policy, and Email List Policy***
2. **Introductions**
3. **Meeting Agenda and Objectives**

Agenda Items

1. **FAC-001-1 and FAC-002-1**
 - a. Finalize recommendations
 - b. Review proposed Standard Authorization Request (SAR)
2. **Finalize Other Recommendations**
 - a. FAC-003-3
 - b. FAC-008-3
 - c. FAC-010-2.1, FAC-011-2, and FAC-014-2
 - d. FAC-013-2
3. **Update on WECC Coordination**
4. **Review Draft Action Plan and Next Steps***
5. **For Information Only**
 - a. Meeting Notes from July 11, 2013 Conference Call*
 - b. FAC FYRT Roster*
6. **Future Meeting Dates**
 - a. September 30-October 2, 2013, Con Ed Headquarters, 4 Irving Place, NY, NY 10003
7. **Adjourn**

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.

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

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.

Public Announcements

REMINDER FOR USE AT BEGINNING OF MEETINGS AND CONFERENCE CALLS THAT HAVE BEEN PUBLICLY NOTICED AND ARE OPEN TO THE PUBLIC

Conference call version:

Participants are reminded that this conference call is public. The access number was posted on the NERC website and widely distributed. Speakers on the call should keep in mind that the listening audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

Face-to-face meeting version:

Participants are reminded that this meeting is public. Notice of the meeting was posted on the NERC website and widely distributed. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

For face-to-face meeting, with dial-in capability:

Participants are reminded that this meeting is public. Notice of the meeting was posted on the NERC website and widely distributed. The notice included the number for dial-in participation. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

Standards Development Process

Participant Conduct Policy

I. General

To ensure that the standards development process is conducted in a responsible, timely and efficient manner, it is essential to maintain a professional and constructive work environment for all participants. Participants include, but are not limited to, members of the standard drafting team and observers.

Consistent with the NERC Rules of Procedure and the NERC Standard Processes Manual, participation in NERC's Reliability Standards development balloting and approval processes is open to all entities materially affected by NERC's Reliability Standards. In order to ensure the standards development process remains open and to facilitate the development of reliability standards in a timely manner, NERC has adopted the following Participant Conduct Policy for all participants in the standards development process.

II. Participant Conduct Policy

All participants in the standards development process must conduct themselves in a professional manner at all times. This policy includes in-person conduct and any communication, electronic or otherwise, made as a participant in the standards development process. Examples of unprofessional conduct include, but are not limited to, verbal altercations, use of abusive language, personal attacks or derogatory statements made against or directed at another participant, and frequent or patterned interruptions that disrupt the efficient conduct of a meeting or teleconference.

III. Reasonable Restrictions in Participation

If a participant does not comply with the Participant Conduct Policy, certain reasonable restrictions on participation in the standards development process may be imposed as described below.

If a NERC Standards Developer determines, by his or her own observation or by complaint of another participant, that a participant's behavior is disruptive to the orderly conduct of a meeting in progress, the NERC Standards Developer may remove the participant from a meeting. Removal by the NERC Standards Developer is limited solely to the meeting in progress and does not extend to any future meeting. Before a participant may be asked to leave the meeting, the NERC Standards Developer must first remind the participant of the obligation to conduct himself or herself in a professional manner and provide an opportunity for the participant to comply. If a participant is requested to leave a meeting by a NERC Standards Developer, the participant must cooperate fully with the request.

Similarly, if a NERC Standards Developer determines, by his or her own observation or by complaint of another participant, that a participant's behavior is disruptive to the orderly conduct of a

teleconference in progress, the NERC Standards Developer may request the participant to leave the teleconference. Removal by the NERC Standards Developer is limited solely to the teleconference in progress and does not extend to any future teleconference. Before a participant may be asked to leave the teleconference, the NERC Standards Developer must first remind the participant of the obligation to conduct himself or herself in a professional manner and provide an opportunity for the participant to comply. If a participant is requested to leave a teleconference by a NERC Standards Developer, the participant must cooperate fully with the request. Alternatively, the NERC Standards Developer may choose to terminate the teleconference.

At any time, the NERC Director of Standards, or a designee, may impose a restriction on a participant from one or more future meetings or teleconferences, a restriction on the use of any NERC-administered list server or other communication list, or such other restriction as may be reasonably necessary to maintain the orderly conduct of the standards development process. Restrictions imposed by the Director of Standards, or a designee, must be approved by the NERC General Counsel, or a designee, prior to implementation to ensure that the restriction is not unreasonable. Once approved, the restriction is binding on the participant. A restricted participant may request removal of the restriction by submitting a request in writing to the Director of Standards. The restriction will be removed at the reasonable discretion of the Director of Standards or a designee.

Any participant who has concerns about NERC's Participant Conduct Policy may contact NERC's General Counsel.

NERC Email List Policy

NERC provides email lists, or “listservs,” to NERC committees, groups, and teams to facilitate sharing information about NERC activities; including balloting, committee, working group, and drafting team work, with interested parties. All emails sent to NERC listserv addresses must be limited to topics that are directly relevant to the listserv group’s assigned scope of work. NERC reserves the right to apply administrative restrictions to any listserv or its participants, without advance notice, to ensure that the resource is used in accordance with this and other NERC policies.

Prohibited activities include using NERC-provided listservs for any price-fixing, division of markets, and/or other anti-competitive behavior.¹ Recipients and participants on NERC listservs may not utilize NERC listservs for their own private purposes. This may include announcements of a personal nature, sharing of files or attachments not directly relevant to the listserv group’s scope of responsibilities, and/or communication of personal views or opinions, unless those views are provided to advance the work of the listserv’s group. Use of NERC’s listservs is further subject to NERC’s Participant Conduct Policy for the Standards Development Process.

- *Updated April 2013*

¹ Please see NERC’s Antitrust Compliance Guidelines for more information about prohibited antitrust and anti-competitive behavior or practices. This policy is available at <http://www.nerc.com/commondocs.php?cd=2>

Five-Year Review Recommendation to Revise FAC-001-1: Facility Connection Requirements

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.¹ FAC-001 is due for a review; it has not been substantially revised since it became enforceable on June 18, 2007.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **REVISING** FAC-001-1. Alongside this recommendation, the FYRT has posted a draft Standard Authorization Request (SAR) outlining the proposed scope and technical justification for the revision.

Note: FAC-001-0 is the mandatory and enforceable version of FAC-001. It has been enforceable since June 18, 2007. On February 9, 2012, the NERC Board of Trustees approved a surgical change to add a requirement for Generator Owners to FAC-001-0, making it FAC-001-1. While FAC-001-1 has not been approved by FERC, a Notice of Proposed Rulemaking was issued on April 18, 2013 proposing to approve it. Because it appears likely that FAC-001-1 will be approved, and because the changes in that version do not materially change the existing requirements in FAC-001-0, the FYRT elected to review FAC-001-1. Throughout this document, the team refers to FAC-001-1, unless it is referencing compliance or enforcement, in which case FAC-001-0 is appropriately referenced.

¹ The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM:

http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-001-1**Team Members:**

1. John Beck (Chair), Consolidated Edison Co. of New York
2. Michael Steckelberg (Vice Chair), Great River Energy
3. Brian Dale, Georgia Power Company
4. Ruth Kloecker, ITC Holdings
5. Stewart Rake, Luminant Generation Company
6. Ganesh Velumylyum, Northern Indiana Public Service Company
7. Mallory Huggins (Lead Standards Developer), NERC
8. Sean Cavote (Supporting Standards Developer), NERC
9. Ed Dobrowolski (Supporting Standards Developer), NERC

Date Review Completed: MM/DD/YY

Background Information (completed by NERC staff)

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard? (If so, NERC staff will attach a list of the directives with citations to associated FERC orders for inclusion in a SAR.)

Yes

No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

Yes

No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

Yes

No

Please explain: FAC-001-0 was not among the 20 most violated standards in 2012.²

All the requirements in FAC-001-0 do appear on the 2013 Actively Monitored List.³ R2, R2.1, R2.1.1, R2.1.5, and R2.1.14 are Tier 1; R2.1.4 and R2.1.16 are Tier 2; R1 and its subparts, R2.1.1, R2.1.3, R2.1.6 through R2.1.13, R2.1.15, and R3 are Tier 3.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to

² The 2012 Compliance Monitoring and Evaluation Annual Report can be found here:
http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.

³ The 2013 Actively Monitored List can be found here:
http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Eenerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

Yes

No

DRAFT

Questions for SME Review Team

1. **Paragraph 81:** Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

Yes

No

Please summarize your application of Paragraph 81 Criteria, if any: The FYRT believes that each of the requirements in FAC-001-1 contains elements that should be considered for retirement under Paragraph 81 criteria.

Both R1 and R2 contain references to compliance with “NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.”

- R1.** The Transmission Owner shall document, maintain, and publish Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements. The Transmission Owner’s Facility connection requirements shall address connection requirements for:
 - 1.1.** Generation Facilities,
 - 1.2.** Transmission Facilities, and
 - 1.3.** End-user Facilities
- R2.** Each applicable Generator Owner shall, within 45 days of having an executed Agreement to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility that is used to interconnect to the interconnected Transmission systems (under FAC-002-1), document and publish its Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.

A similar reference is contained in FAC-002-1, R1.2, which also requires the ensurance of compliance with “NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements of the impacted systems.” While the entities to which these requirements are assigned differ, the concepts may be redundant (Criterion B7) and possibly not necessary for reliability, as the requirement to comply with the cited requirements is covered elsewhere. For instance, a failure to comply with another NERC Reliability

Standard would be a violation of that Reliability Standard and does not need to be penalized again here. These references should be considered for deletion from R1 and R2.

Additionally, the FYRT believes that subparts R3.1 and R3.1.3 through R3.1.16 are not necessary for reliability (Criterion A) and are redundant (Criterion B7) or generally too prescriptive to be contained in a standard.

- R3.** Each Transmission Owner and each applicable Generator Owner (in accordance with Requirement R2) shall address the following items in its Facility connection requirements:
 - 3.1.** Provide a written summary of its plans to achieve the required system performance as described in Requirements R1 or R2 throughout the planning horizon:
 - 3.1.1.** Procedures for coordinated joint studies of new Facilities and their impacts on the interconnected Transmission systems.
 - 3.1.2.** Procedures for notification of new or modified Facilities to others (those responsible for the reliability of the interconnected Transmission systems) as soon as feasible.
 - 3.1.3.** Voltage level and MW and MVAR capacity or demand at point of connection.
 - 3.1.4.** Breaker duty and surge protection.
 - 3.1.5.** System protection and coordination.
 - 3.1.6.** Metering and telecommunications.
 - 3.1.7.** Grounding and safety issues.
 - 3.1.8.** Insulation and insulation coordination.
 - 3.1.9.** Voltage, Reactive Power, and power factor control.
 - 3.1.10.** Power quality impacts.
 - 3.1.11.** Equipment Ratings.
 - 3.1.12.** Synchronizing of Facilities.
 - 3.1.13.** Maintenance coordination.
 - 3.1.14.** Operational issues (abnormal frequency and voltages).
 - 3.1.15.** Inspection requirements for existing or new Facilities.
 - 3.1.16.** Communications and procedures during normal and emergency operating conditions.

R3.1 is redundant with the main requirement and reads like a Measure. The FYRT recommends that R3.1 be retired. The list of items in 3.1.3 through 3.1.16 is too prescriptive; the purpose of the standard is to require entities to have Facility connection requirements, not to prescribe what is contained within those requirements. For instance, the requirements to address “grounding and safety issues” in 3.1.7 and “power quality impacts” in 3.1.10 are distribution level matters that are under the purview of state public service commissions. The FYRT believes that only subparts 3.1.1 and 3.1.2, which require Transmission Owners and applicable Generator Owners to have procedures for studying the impact of new Facilities on the Transmission system and procedures for notifying others about new Facilities, relate to reliability and should remain in the standard.

Thus, R3.1 and R3.1.3 through R3.1.16 should also be considered for retirement under P81 criteria, and possibly for transfer into a guidance document.

Finally, the FYRT recommends that Requirement R4 be considered for removal in its entirety because it is not reliability-related (Criterion A) and it is redundant both with Requirement R1 and with NERC's Rules of Procedure (Criterion B7).

R4. The Transmission Owner shall maintain and update its Facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Entity, and ERO on request (five business days).

The requirement to maintain and update Facility connection requirements in Requirement R4 is partly contained in Requirement R1's language to "document, maintain, and publish." If "update" must be retained, it can be added to that list of required actions in R1. The second sentence of Requirement R4, which requires Transmission Owners to make documentation available, is redundant with the "publish" requirement in R1. Further, requests to share data or information to Regional Entities and the ERO upon request are already addressed in Section 1600 of NERC's Rules of Procedure. R4 should also be considered for retirement under P81 criteria.

During Phase 1 of the Paragraph 81 process, the review team received some comments suggesting that R1 and R2 of FAC-001-0 be retired because they relate to documentation. While the FYRT agrees that many documentation requirements are not related to reliability, the team believes that this FAC-001 is about more than documentation; it requires the *establishment* of Facility connection requirements. The development and documentation of these Facility connection requirements facilitates the assessment process that takes place in FAC-002-1.

And although Facility connection requirements are typically covered in tariffs or other similar documents, the requirement for Open Access Transmission Tariffs or ISO/RTO requirements varies from region to region. FERC handles market-related documents like tariffs differently from reliability-related documents like standards, and reliability standards should not rely upon market-related documents to address reliability issues. What's more, there would be no market-based requirements (in the forms of tariffs or otherwise) for the non-jurisdictional entities that fall in NERC's footprint. Ultimately, the team agreed that Facility connection requirements are necessary for reliability and should continue to be explicitly addressed in NERC standards.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

- a. Is this a Version 0 Reliability Standard?
- b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
- c. Are the requirements consistent with the purpose of the Reliability Standard?

Yes

No

Please summarize your assessment: This is a Version 0 Reliability Standard, but except for the potential P81 retirements already identified, the FYRT believes that the requirements generally remain clear and consistent with the purpose of the Reliability Standard. The drafting team should, however, consider whether the term “publish” in R1 is clear. If the intended meaning is the same as the dictionary definition of the word – to make generally known/disseminate to the public – then avoiding further explanation gives entities some flexibility. If not, the term could use further explanation in a reference section, with references to examples of what would fulfill the requirement to “publish” in the context of the standard.

The FYRT does not believe that it is clear, in R3.1.1 and R3.1.2, whether “the interconnected Transmission Systems” include adjacent Transmission system(s). A drafting team should consider whether adjacent Transmission systems need to be explicitly included in the requirement language.

Additionally, the purpose of the standard reads: “To avoid adverse impacts on reliability, Transmission Owners must establish facility connection and performance requirements.” The FYRT recommends that the purpose statement be considered for editing, because performance requirements are not as clearly included in the standard as facility connection requirements are.

3. **Definitions:** Do any of the defined terms used within the Reliability Standard need to be refined?

Yes

No

Please explain: None of the defined terms used within the Reliability Standard need to be refined. However, the drafting team should review the standard and ensure that all NERC Glossary Terms that could be capitalized (e.g., Facility, Transmission) are appropriately capitalized.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative

and FERC and NERC guidelines? If you answered “No,” please identify which elements require revision, and why:

- Yes
 No

The FAC-001-1 VSLs and Measures are consistent with NERC and FERC guidelines, but if a drafting team revises the standard, the VSLs and Measures will need to be updated. A drafting team should also incorporate Time Horizons into the requirements. And while the Data Retention section of the standard is currently appropriate, the FYRT notes that the boilerplate language should be reviewed for continued accuracy at the time that the standard is revised.

The FYRT also believes that the currently assigned VRFs are inconsistent with VRF guidelines and with other standards. Currently, all of the requirements are assigned a Medium VRF. The requirements in FAC-001-1 are administrative in nature and take place in the planning horizon – both factors that can lead to a Lower VRF assignment. Additionally, R3 of FAC-003-2, which requires documented maintenance strategies or procedures or processes or specifications and takes place in the planning horizon, is assigned a Lower VRF, and VRFs are to be consistent across standards. Thus, the FYRT believes that each requirement in FAC-001-1 should be reconsidered for a Lower VRF.

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered “Yes,” please describe the changes needed to achieve formatting and language consistency:

- Yes
 No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered “Yes,” please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

- Yes
 No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

- Yes
 No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No. Generator interconnection Facilities were already proposed for incorporation into FAC-001-1 by the Project 2010-07: Generator Requirements at the Transmission Interface drafting team.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- AFFIRM
 REVISE
 RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR):* As considered in more detail above, to eliminate requirements with no impact on the reliable operation of the Bulk Electric System, add clarity, remove redundancy, and bring compliance elements into conformance with NERC guidelines, the FYRT recommends revising FAC-001-1. The standard should also be transferred to the new Results-Based Standard template.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
 REVISE
 RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR):*

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "[Acceptance Criteria of a Reliability Standard](#)."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

- a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?
- b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?
- c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.
5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.
6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.
8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.⁴ Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities (“entities”) to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines “reliable operation” as: “... operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

⁴ In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention

These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation

The Reliability Standard requirement requires responsible entities to develop a document (*e.g.*, plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting

The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates

The Reliability Standard requirement requires responsible entities to periodically update (*e.g.*, annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice

The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant

The Reliability Standard requirement is redundant with: (i) another FERC-approved Reliability Standard requirement(s); (ii) the ERO compliance and monitoring program; or (iii) a governmental regulation (e.g., Open Access Transmission Tariff, North American Energy Standards Board (“NAESB”), etc.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)

Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?

The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?

The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection (“CIP”) requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?

The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?

The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In other words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?

The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

Five-Year Review Recommendation to Revise FAC-002-1: Coordination of Plans for New Facilities

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.¹ While FAC-002-1 became enforceable on October 1, 2011, it has not been substantively revised and thus is being reviewed as part of the overall FAC five-year review process.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **REVISING** FAC-002-1. Alongside this recommendation, the FYRT has posted a draft Standard Authorization Request (SAR) outlining the proposed scope and technical justification for the revision.

¹ The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resourcess/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-002-1

Team Members (include name, organization, phone number, and email address):

1. John Beck (Chair), Consolidated Edison Co. of New York
2. Michael Steckelberg (Vice Chair), Great River Energy
3. Brian Dale, Georgia Power Company
4. Ruth Kloecker, ITC Holdings
5. Stewart Rake, Luminant Generation Company
6. Ganesh Velumyylum, Northern Indiana Public Service Company
7. Mallory Huggins (Lead Standards Developer), NERC
8. Sean Cavote (Supporting Standards Developer), NERC
9. Ed Dobrowolski (Supporting Standards Developer), NERC

Date Review Completed: MM/DD/YY

DRAFT

Background Information (completed by NERC staff)

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

Yes

No

There are two outstanding directives from FERC Order 693² that apply to FAC-002-0. The first directs NERC to consider incorporating a reference to TPL-004-0 in FAC-002-0. The FYRT believes that TPL-004 is distinct from the other TPL standards, which are referenced in FAC-002-1, R1.3, because TPL-004 deals with extreme events and requires an assessment of performance but not any particular mitigation, whereas TPL-001, TPL-002, and TPL-003 deal with assessment and mitigation. This distinction could be why the TPL-004 reference was not incorporated. Regardless, this directive is outdated. FERC has issued a Notice of Proposed Rulemaking proposing to approve TPL-001-4, which will combine the four TPL standards, so the reference in FAC-002 will need to be changed to reference TPL-001-4.

Comment [MCH1]: Worth including, or should we simply note that the TPL reference will need to be updated in general?

The second outstanding directive related to FAC-002-0 asked NERC to consider the comments of various entities asking for clarification of R1.

- APPA requested that the Reliability Standard be clarified to state that the required assessment must be performed only by the Transmission Planner and the Planning Authority. Related, TAPS expressed concern that Load-Serving Entities are not equipped to perform assessments. California Cogeneration expressed a similar concern about Generator Owners' ability to perform an assessment.
 - The FYRT recommends addressing these concerns by splitting R1 into three requirements that better clarify the responsibilities of all entities involved. As envisioned by the FYRT, a new R1 would focus exclusively on the Transmission Planner and Planning Authority's responsibility for conducting assessments, and a new R2 and R3 would separate out the requirement for Generator Owners, Transmission Owners, Distribution Providers, and Load-Serving Entities to simply coordinate and cooperate on those assessments.
- Xcel requested that the Commission clarify that only one required assessment needs to be done when new facilities are added, and that all the listed entities should participate in that single assessment.

² FERC Order No. 693, which approved 83 Reliability Standards as mandatory and effective, is available here: <http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/ORDER%20693.pdf>.

- The FYRT agrees that it is possible that only one assessment may be necessary, and in that case all entities could simply participate and sign on to that assessment, but in other cases, multiple assessments might be conducted and later coordinated.
 - FirstEnergy requested that NERC clarify what is considered a new facility and asks if, for example, up-rates should be included as new facilities.
 - The FYRT believes the determination of whether an up-rate needs to be assessed the same way as a new facility is up to the entity that's conducting the study, and that such decisions will vary by region.
 - Six Cities requested that this Reliability Standard clarify that all applicable entities must make available data necessary for all other responsible entities to perform the required assessment.
 - The FYRT believes that the requirement to coordinate and cooperate requires the sharing of all data necessary for conducting an assessment.
 - Six Cities also suggested that the transmission operator be added as an entity to which this Reliability Standard is applicable, at least from the perspective that it make necessary data available to all other entities responsible for assessment.
 - The FYRT believes that data from the Transmission Owner would account for the necessary data from the transmission side. It would be the responsibility of the Transmission Planner or Planning Authority to include any relevant operations data.
 - FirstEnergy stated that both MISO and PJM already have Large Generator Interconnection Procedures (LGIP) in place that provide a formal process that meets the requirements listed under R1, and asks that the Commission state that complying with the interconnection agreement and/or OATT satisfies this requirement.
 - The FYRT points out that regardless of what's covered in a tariff, requirements for interconnecting new facilities still need to be addressed in NERC's Reliability Standards. The requirement for Open Access Transmission Tariffs varies from region to region. FERC handles market-related documents like tariffs differently from reliability-related documents like standards, and reliability standards should not rely upon market-related documents to address reliability issues.
2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

Yes

No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

Yes

No

Please explain: FAC-002-1 is not one of the most frequently violated Reliability Standards, but all of the requirements in FAC-002-1 do appear on the 2013 Actively Monitored List.³ R1 and R1.3 are Tier 1; R1.1, R1.2, R1.4, and R1.5 are Tier 2.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

Yes

No

³ The 2013 Actively Monitored List can be found here:

[http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively Monitored Reliability Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Energ%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1](http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively%20Monitored%20Reliability%20Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Energ%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1).

Questions for SME Review Team

1. **Paragraph 81:** Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

Yes

No

Please summarize your application of Paragraph 81 Criteria, if any: R2 has already been proposed for retirement by the Paragraph 81 review team. The FYRT recommends that R1 be modified but retained in the interest of reliability. One subpart, R1.2, should be considered for possible P81 retirement. R1.2 requires the ensurance of compliance with “NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements of the impacted systems.”

A similar reference is contained in FAC-001-1, which requires compliance with “NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.” While the entities to which these requirements are assigned differ, the concepts may be redundant (Criterion B7) and possibly not necessary for reliability, as the requirement to comply with the cited requirements is covered elsewhere. For instance, a failure to comply with another NERC Reliability Standard would be a violation of that Reliability Standard and does not need to be penalized again here. Thus, R1.2 should be considered for retirement under P81.

The FYRT also discussed whether R1, which requires that assessments be conducted, is redundant with TPL-001-4, R2, which requires Transmission Planners and Planning Coordinators to prepare Planning Assessments for their portions of the BES. The team determined that the assessment requirement in FAC-002-1 is distinct from TPL-001-4, R2; a Planning Assessment under TPL would be for existing facilities or interconnections, whereas FAC-002 requires a similar kind of assessment to TPL, but it’s a *pre-interconnection* assessment for new facilities that may or may not end up interconnecting. Once they’re interconnected, they’d be covered under TPL, but until then, the potential impact is evaluated under FAC-002.

During Phase 1 of the Paragraph 81 process, the review team received one comment expressing concern about R1, stating that the requirement assigns responsibility to the wrong functional entity. The FYRT believes this concern could be addressed by splitting R1 into three requirements that better clarify the responsibilities of all entities involved, as considered below.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

- a. Is this a Version 0 Reliability Standard?
- b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
- c. Are the requirements consistent with the purpose of the Reliability Standard?

Yes

No

Please summarize your assessment: While FAC-002-1, R1 is necessary for reliability, the FYRT believes that it is unclear as written, especially in the manner in which it assigns responsibility by functional entity. The FYRT recommends splitting R1 into different requirements to add clarity and better distinguish among the required actions. Additionally, the team recommends revising some of the original R1 subparts, because they currently read like Measures rather than requirements.

R1. The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall each coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority. The assessment shall include:

- 1.1. Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.
- 1.2. Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.
- 1.3. Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.
- 1.4. Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance under both normal and contingency conditions in accordance with Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0.
- 1.5. Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.

The FYRT recommends splitting R1 into three requirements: one requiring the Transmission Planner and Planning Authority to conduct assessments (new R1), one requiring Generator Owners

to coordinate and cooperate with the Transmission Planner and Planning Authority as those assessments are conducted (new R2), and one requiring Transmission Owners, Distribution Providers, and Load-Serving Entities to coordinate and cooperate with the Transmission Planner and Planning Authority as those assessments are conducted (new R3). The FYRT recommends ordering the requirements so that the new R1, which focuses on what needs to be included in an assessment, comes before R2 and R3, which focus on the entities that need to coordinate and cooperate with the entities conducting the assessments.

The FYRT also recommends moving the current R1.1-1.5 under the new R1, with deletion of most of R1.3 (and possibly R1.2, as discussed above). R1.3 reads like more of a Measure for the coordination and cooperation aspect of the standard, but the last sentence of original R1.3 (“While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.”) should be added to the new R1.1 to ensure that some reference to coordinating with third parties and end users is included. Similarly, the FYRT does not believe it is clear whether “the interconnected transmission Systems” in R1.1 include adjacent Transmission system(s). A drafting team should consider whether adjacent Transmission systems need to be explicitly included in the requirement language.

The FYRT also recommends the modification of the current R1.4 and R1.5 to make them read more like subparts of a requirement and less like Measures. For instance, the team recommends that phrases like “evidence that...” be deleted.

3. **Definitions:** Do any of the defined terms used within the Reliability Standard need to be refined?

- Yes
 No

Please explain: None of the defined terms used within the Reliability Standard need to be refined. However, the drafting team should review the standard and ensure that all NERC Glossary Terms that could be capitalized (e.g., Facility, Transmission) are appropriately capitalized.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered “No,” please identify which elements require revision, and why:

- Yes
 No

FAC-002-1 VSLs, VRFs, and Measures are consistent with NERC and FERC guidelines, but if a drafting team revises the standard, the VSLs, VRFs, and Measures will all need to be revised and incorporated into the body of the standard. Time Horizons will also need to be incorporated into the requirements. The Data Retention section of the standard should be updated to ensure that it is consistent with current NERC guidance on compliance language within a standard.

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered “Yes,” please describe the changes needed to achieve formatting and language consistency:

- Yes
 No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered “Yes,” please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

- Yes
 No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

- Yes
 No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability

Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

DRAFT

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- AFFIRM
- REVISE
- RETIRE

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*): As considered in more detail above, to eliminate redundancy, clarify the responsibilities of all entities involved in the standard, and update references to TPL standards, the FYRT recommends revising FAC-002-1. The standard should also be transferred to the new Results-Based Standard template.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- AFFIRM (*This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.*)
- REVISE
- RETIRE

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*):

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "[Acceptance Criteria of a Reliability Standard.](#)"

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

- a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?
- b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?
- c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.
5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.
6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.
8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.⁴ Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities (“entities”) to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines “reliable operation” as: “... operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

⁴ In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention

These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation

The Reliability Standard requirement requires responsible entities to develop a document (*e.g.*, plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting

The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates

The Reliability Standard requirement requires responsible entities to periodically update (*e.g.*, annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice

The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant

The Reliability Standard requirement is redundant with: (i) another FERC-approved Reliability Standard requirement(s); (ii) the ERO compliance and monitoring program; or (iii) a governmental regulation (*e.g.*, Open Access Transmission Tariff, North American Energy Standards Board (“NAESB”), etc.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)

Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?

The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?

The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection (“CIP”) requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?

The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?

The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In other words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?

The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

Five-Year Review Recommendation to Affirm FAC-003-3: Transmission Vegetation Management

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.¹ While FAC-003 is not yet due for a review, as the latest revised version is not yet enforceable, it is being reviewed as part of a comprehensive review project for all FAC standards.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. Five-Year Review Teams (FYRTs) use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that a Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **AFFIRMING** FAC-003-3.

Note: FAC-003-2 is the latest FERC-approved version of FAC-003. It will become enforceable on July 1, 2014. On February 9, 2012, the NERC Board of Trustees approved a surgical change to add certain kinds of Generator Owners to the Applicability section of FAC-003-2, which would create FAC-003-3. While FAC-003-3 has not been approved by FERC, a Notice of Proposed Rulemaking was issued on April 18, 2013 proposing to approve it. Because it appears likely that FAC-003-3 will be approved, and because the changes in that version do not materially change the existing requirements in FAC-003-2, the FYRT elected to review FAC-003-3. Throughout this document, the team refers to FAC-003-3, unless it is referencing compliance or enforcement, in which case FAC-003-1 (the current mandatory and enforceable version of the standard) is appropriately referenced.

¹ The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM:

http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-003-3**Team Members:**

1. John Beck (Chair), Consolidated Edison Co. of New York
2. Michael Steckelberg (Vice Chair), Great River Energy
3. Brian Dale, Georgia Power Company
4. Ruth Kloecker, ITC Holdings
5. Stewart Rake, Luminant Generation Company
6. Ganesh Velumylyum, Northern Indiana Public Service Company
7. Mallory Huggins (Lead Standards Developer), NERC
8. Sean Cavote (Supporting Standards Developer), NERC
9. Ed Dobrowolski (Supporting Standards Developer), NERC

Date Review Completed: MM/DD/YY

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

Yes

No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

Yes

No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

Yes

No

Please explain: FAC-003-1 was not among the 20 most violated standards in 2012.²

All the requirements in FAC-003-1 appear on the 2013 Actively Monitored List.³ R1 and its subparts and R2 are Tier 1; R3 and its subparts and R4 are Tier 2.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with

² The 2012 Compliance Monitoring and Evaluation Annual Report can be found here:
http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.

³ The 2013 Actively Monitored List can be found here:
http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Energ%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

Yes

No

DRAFT

Questions for SME Review Team

1. **Paragraph 81:** Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

Yes

No

Please summarize your application of Paragraph 81 Criteria, if any: Not applicable.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

a. Is this a Version 0 Reliability Standard?

b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?

c. Are the requirements consistent with the purpose of the Reliability Standard?

Yes

No

Please summarize your assessment: The FYRT supports the extensive background, guidelines, and technical basis developed by the Project 2007-07: Transmission Vegetation Management drafting team. As the first team to develop a Results-Based Standard, the team developed clear, enforceable requirements that the FYRT supports and for which no issues have been identified.

3. **Definitions:** Do any of the defined terms used within the Reliability Standard need to be refined?

Yes

No

Please explain: None of the defined terms used within the Reliability Standard need to be refined.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative

and FERC and NERC guidelines? If you answered “No,” please identify which elements require revision, and why:

- Yes
 No

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered “Yes,” please describe the changes needed to achieve formatting and language consistency:

- Yes
 No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered “Yes,” please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

- Yes
 No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

- Yes
 No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No. The Project 2010-07: Generator Requirements at the Transmission Interface team already proposed a revision to FAC-003 to appropriately account for certain kinds of GOs that own certain kinds of generator interconnection Facilities.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

DRAFT

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- AFFIRM
 REVISE
 RETIRE

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*): There have been no changes since FERC approved FAC-003-2 on March 21, 2013 that affect the technically justified, clear requirements that were developed by the Project 2007-07 drafting team and thoroughly vetted by industry stakeholders. Similarly, the FYRT continues to support the Project 2010-07: Generator Requirements at the Transmission Interface drafting team's specific addition of certain Generator Owners in FAC-003-3. The FYRT recommends affirming FAC-003-3, if FERC approves it, and if not, the FYRT recommends affirming FAC-003-2.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- AFFIRM (*This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.*)
 REVISE
 RETIRE

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*):

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "[Acceptance Criteria of a Reliability Standard](#)."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

- a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?
- b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?
- c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.
5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.
6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.
8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.⁴ Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities (“entities”) to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines “reliable operation” as: “... operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

⁴ In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention

These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation

The Reliability Standard requirement requires responsible entities to develop a document (*e.g.*, plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting

The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates

The Reliability Standard requirement requires responsible entities to periodically update (*e.g.*, annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice

The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant

The Reliability Standard requirement is redundant with: (i) another FERC-approved Reliability Standard requirement(s); (ii) the ERO compliance and monitoring program; or (iii) a governmental regulation (*e.g.*, Open Access Transmission Tariff, North American Energy Standards Board (“NAESB”), etc.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)

Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?

The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?

The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection (“CIP”) requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?

The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?

The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In other words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?

The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

Five-Year Review Recommendation to Affirm FAC-008-3: Facility Ratings

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.¹ While FAC-008-3 is not yet due for a review, as it only recently became enforceable on January 1, 2013, it is being reviewed as part of a comprehensive review project for all FAC standards.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. Five-Year Review Teams (FYRTs) use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that a Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **AFFIRMING** FAC-008-3, with some recommendations for additional clarity in guidance documents that support the standard.

¹ The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM:

http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-008-3**Team Members:**

1. John Beck (Chair), Consolidated Edison Co. of New York
2. Michael Steckelberg (Vice Chair), Great River Energy
3. Brian Dale, Georgia Power Company
4. Ruth Kloecker, ITC Holdings
5. Stewart Rake, Luminant Generation Company
6. Ganesh Velumylyum, Northern Indiana Public Service Company
7. Mallory Huggins (Lead Standards Developer), NERC
8. Sean Cavote (Supporting Standards Developer), NERC
9. Ed Dobrowolski (Supporting Standards Developer), NERC

Date Review Completed: MM/DD/YY

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

Yes

No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

Yes

No

While there are no interpretations or CANs associated with this version of FAC-008, there were two CANs associated with FAC-008-1 and FAC-009-1. Those standards were combined in FAC-008-3.

CAN-0009² is associated with FAC-008-1 and FAC-009-1. It provides instruction for assessing compliance with FAC-008-1 R1 and FAC-009-1 R1 when an entity's constructed Facilities do not match its design specification.

CAN-0018³ is associated with FAC-008-1. In CAN-0018, NERC compliance states that "terminal equipment" (referenced in R2.4.1 and R3.4.1) refers to wave traps, current transformers, disconnect switches, breakers, primary fuses, and any piece of series-connected equipment that comprises a Facility and that could have the most limited applicable Equipment Rating. FAC-008-3 contains similar references to "terminal equipment."

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

² CAN-0009 can be found here:

[http://www.nerc.com/pa/comp/Resources/Compliance%20Application%20Notices%20DL/CAN-0009%20FAC-008%20and%20FAC-009%20Facility%20Ratings%20and%20Design%20Specifications%20\(Revised\).pdf](http://www.nerc.com/pa/comp/Resources/Compliance%20Application%20Notices%20DL/CAN-0009%20FAC-008%20and%20FAC-009%20Facility%20Ratings%20and%20Design%20Specifications%20(Revised).pdf).

³ CAN-0018 can be found here:

[http://www.nerc.com/pa/comp/Resources/Compliance%20Application%20Notices%20DL/CAN-0018%20FAC-008%20R1.2.1%20Terminal%20Equipment%20\(Revised\).pdf](http://www.nerc.com/pa/comp/Resources/Compliance%20Application%20Notices%20DL/CAN-0018%20FAC-008%20R1.2.1%20Terminal%20Equipment%20(Revised).pdf).

Yes No

Please explain: FAC-009-1 was the 9th most violated standard in 2012, and FAC-008-1 was the 13th most violated standard in 2012.⁴ Because of this, a Compliance Analysis Report⁵ was developed in 2010 to “provide information on compliance, including reasons for violations and identification of process enhancements and lessons learned to assist Registered Entities in improving compliance and thus enhancing reliability.” These statistics and the Compliance Analysis Report, however, do not relate to FAC-008-3, which recently became enforceable on January 1, 2013.

Some of the requirements in FAC-008-3 appear on the 2013 Actively Monitored List.⁶ R6 and R7 are Tier 1; R1, R2, and R3 and their subparts are Tier 2; and R8 is Tier 3. R4 and R5 are not on the list.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

 Yes No

While FAC-008-3 is not in the Results-Based Standard template, its requirements are clear, measurable, and enforceable and fulfill the purpose of the Results-Based Standards process by describing a function that is performance-, risk-, or competency-based. The requirements also support one or more of NERC’s reliability principles.

R1, R2, and R3 are competency-based requirements; they define a set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. These requirements ensure that the applicable entities can demonstrate that they developed Facility Ratings that have accounted for a variety of reliability functions.

⁴ The 2012 Compliance Monitoring and Evaluation Annual Report can be found here:

http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.

⁵ The Compliance Analysis Report for FAC-008-1 and FAC-009-1 can be found here:

<http://www.nerc.com/pa/comp/Compliance%20Analysis%20Reports%20DL/1FAC-008-009%20Analysis%20Combined%20FINAL%20POSTED.pdf>.

⁶ The 2013 Actively Monitored List can be found here:

http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Eenerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

R4 and R5 have been approved for retirement by NERC's Board of Trustees.

R6 is a performance-based requirement; it describes an action that must be performed. It ensures that the applicable entities actually apply the Facility Ratings for which they developed a methodology or documentation in R1, R2, and R3.

R7 and R8 are performance-based requirements; they describe actions that must be performed. They ensure that the applicable entities provide their Facility Ratings to those other entities that may be affected by the Facility Ratings, so that the associated entities can continue to perform their reliability functions.

Collectively, these requirements support reliability principle 1 ("Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards") and reliability principle 3 ("Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably").

It is not essential that the standard be converted into a new template; the requirements already fulfill the Results-Based Standard guidelines.

Questions for SME Review Team

1. **Paragraph 81:** Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

Yes

No

Please summarize your application of Paragraph 81 Criteria, if any: Not applicable.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

a. Is this a Version 0 Reliability Standard?

b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?

c. Are the requirements consistent with the purpose of the Reliability Standard?

Yes

No

Please summarize your assessment: This is not a Version 0 Reliability Standard and the requirements are consistent with the purpose of the Reliability Standard.

The FYRT has identified two opportunities to clarify ambiguous language in FAC-008-3, but the team does not believe that the standard needs to be revised in order to clarify that language.

The first opportunity for clarification is with the undefined term “terminal equipment.” CAN-0018, originally issued on June 27, 2011, clarifies that “terminal equipment” refers to wave traps, current transformers, disconnect switches, breakers, primary fuses, and any piece of series-connected equipment that comprises a Facility and that could have the most limited applicable Equipment Rating. NERC plans to retire all CANs by the end of the year, and the FYRT believes it is important to memorialize this explanation in writing elsewhere. NERC standards staff and compliance staff discussed this concern and will ensure that the clarification is incorporated into the revised FAC-008-3 RSAW and shared with the FYRT for its review.

The FYRT notes that CAN-0009, originally issued on January 7, 2011, applied to FAC-008-1 and FAC-009-1. That CAN provides instruction for assessing compliance on the previously enforceable FAC standards, and the FYRT does not believe it is within its scope, as a standards-focused team, to determine the best way to offer that compliance guidance going forward.

The second opportunity to clarify ambiguous language relates to the reference to Facility Ratings “provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating” in R3. R3.1 requires Transmission Owners to have a documented methodology used to establish Facility Ratings that is consistent with one of three methods. One of those methods is obtaining ratings from the equipment manufacturer, but the other methods do not require knowledge of the equipment manufacturer rating and instead allow ratings to be developed based on “one or more industry standards developed through an open process such as Institute of Electrical and Electronics Engineers (IEEE) or International Council on Large Electric Systems (CIGRE)” or “a practice that has been verified by testing, performance history or engineering analysis.” R3.2 requires that “each of the following” be considered: “Equipment Rating standard(s) used in development of this methodology,” “Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications,” “Ambient conditions (for particular or average conditions or as they vary in real-time),” and “Operating limitations.”

The FYRT believes it is possible to apply R3.2 in a way that requires entities to have ratings provided by equipment manufacturers, even in cases where the equipment is decades old and does not have nameplate ratings, nor does the manufacturer still exist. This interpretation could occur, in part, because the main requirement says that each Transmission Owner must have a documented methodology for determining Facility Ratings “that contains all of the following.” It is possible that “all of the following” could be construed to refer to every subpart of the requirement, despite the qualifications in R3.1 (“...at least one of the following”) and R3.2 (“...how each of the following were considered”). This concern was also noted in the development of FAC-008-2. At that time, the Project 2009-06 drafting team dismissed the concern because the drafting team found the language to be clear, as did most stakeholders.⁷

The FYRT believes there could be value in clarifying the application of FAC-008-3, Requirement R3. Thus, the FYRT recommended that NERC compliance staff confirm, in writing, that R3 should not be construed to require entities to have Facility Ratings from equipment manufacturers in cases where those ratings are not available. NERC standards staff and compliance staff discussed this concern and will ensure that the clarification is incorporated into the revised FAC-008-3 RSAW and shared with the FYRT for its review.

⁷ See P. 9 in the Project 2009-06 comment report from March 4, 2010:
http://www.nerc.com/pa/Stand/Project%20200906%20Facility%20Ratings%20DL/Comment_Report_In-ballot_2009-06_Facility_Ratings_20100304.pdf.

3. **Definitions:** Do any of the defined terms used within the Reliability Standard need to be refined?

Yes

No

Please explain: None of the defined terms used within the Reliability Standard need to be refined, though, as the team notes above, the undefined term “terminal equipment” should be better explained.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered “No,” please identify which elements require revision, and why:

Yes

No

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered “Yes,” please describe the changes needed to achieve formatting and language consistency:

Yes

No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered “Yes,” please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

Yes

No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

Yes

No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

DRAFT

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- AFFIRM
- REVISE
- RETIRE

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*): The requirements in FAC-008-3 are generally clear, measurable, and enforceable and thus, the FYRT recommends affirming the standard with no standard revisions. The FYRT has worked with NERC staff to ensure that the undefined term “terminal equipment” in R2.4.1 and R3.4.1 and the references to Facility Ratings obtained from the equipment manufacturer in R3 are clarified in the updated FAC-008-3 RSAW.

Preliminary Recommendation posted for industry comment (date): **MM/DD/13**

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- AFFIRM (*This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.*)
- REVISE
- RETIRE

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*):

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "[Acceptance Criteria of a Reliability Standard](#)."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

- a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?
- b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?
- c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.
5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.
6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.
8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.⁸ Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities (“entities”) to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines “reliable operation” as: “... operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

⁸ In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention

These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation

The Reliability Standard requirement requires responsible entities to develop a document (*e.g.*, plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting

The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates

The Reliability Standard requirement requires responsible entities to periodically update (*e.g.*, annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice

The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant

The Reliability Standard requirement is redundant with: (i) another FERC-approved Reliability Standard requirement(s); (ii) the ERO compliance and monitoring program; or (iii) a governmental regulation (e.g., Open Access Transmission Tariff, North American Energy Standards Board (“NAESB”), etc.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)

Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?

The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?

The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection (“CIP”) requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?

The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?

The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In other words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?

The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

Five-Year Review Recommendation to Delay Review of Three FAC Standards

FAC-010-2.1: System Operating Limits Methodology for the Planning Horizon

FAC-011-2: System Operating Limits Methodology for the Operations Horizon

FAC-014-2: Establish and Communicate System Operating Limits

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.¹ FAC-010-2.1 (which became enforceable on April 19, 2010), FAC-011-2 (which became enforceable on April 29, 2009), and FAC-014-2 (which became enforceable on April 29, 2009), are not yet due for a review. However, they are being reviewed as part of a comprehensive review project for all FAC standards. Because these standards are closely related and all could be impacted by other standards projects that are pending approval at FERC, they were reviewed together.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **DELAYING THE REVIEW** of FAC-010-2.1, FAC-011-2, and FAC-014-2 until FERC acts on TOP-001-2—Transmission Operations, TOP-002-3—Operations Planning, and TOP-003-2—Operational Reliability Data (filed for approval on April 16, 2013) and TPL-001-4—Transmission System Planning Performance Requirements (filed for approval on February 29, 2013). The FYRT notes that a separate effort is ongoing to determine whether the regional differences in FAC-010-2.1 and FAC-011-2 can be retired.

¹ The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM:

http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standards: FAC-010-2.1, FAC-011-2, and FAC-014-2**Team Members:**

1. John Beck (Chair), Consolidated Edison Co. of New York
2. Michael Steckelberg (Vice Chair), Great River Energy
3. Brian Dale, Georgia Power Company
4. Ruth Kloecker, ITC Holdings
5. Stewart Rake, Luminant Generation Company
6. Ganesh Velumylyum, Northern Indiana Public Service Company
7. Mallory Huggins (Lead Standards Developer), NERC
8. Sean Cavote (Supporting Standards Developer), NERC
9. Ed Dobrowolski (Supporting Standards Developer), NERC

Date Review Completed: MM/DD/YY

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standards?

Yes

No

2. Have stakeholders requested clarity on the Reliability Standards in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standards.)

Yes

No

3. Are the Reliability Standards some of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

Yes

No

Please explain: FAC-010-2.1, FAC-011-2, and FAC-014-2 were not among the most violated standards in 2012.² None of the requirements in FAC-010-2.1, FAC-011-2, or FAC-014-2 appear on the 2013 Actively Monitored List.³

4. Do Reliability Standards need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

² The 2012 Compliance Monitoring and Evaluation Annual Report can be found here:
http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.

³ The 2013 Actively Monitored List can be found here:
http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Energ%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easp&DefaultItemOpen=1&DefaultItemOpen=1.

- Yes
 No

At this time, FAC-010-2.1, FAC-011-2, and FAC-014-2 should not be converted to a Results-Based Standard template, but when the standards are thoroughly reviewed in the future, conversion may be necessary.

DRAFT

Questions for SME Review Team

1. **Paragraph 81:** Does one or more of the requirements in the Reliability Standards meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

Yes

No

Please summarize your application of Paragraph 81 Criteria, if any: After a preliminary review, the team identified some possible redundancies with FAC-010-2.1, FAC-011-2, and FAC-014-2 requirements and the TOP and TPL standards that are pending FERC approval. The FYRT recommends a thorough Paragraph 81 review once FERC has acted on those TOP and TPL standards.

2. **Clarity:** If the Reliability Standards have an Interpretation, CAN, or issue associated with it, or are frequently violated because of ambiguity, they probably need to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standards should be modified to address a lack of clarity? Consider:

- a. Is this a Version 0 Reliability Standard?
- b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
- c. Are the requirements consistent with the purpose of the Reliability Standard?

Yes

No

Please summarize your assessment: These are not Version 0 Reliability Standards. But after a preliminary review, the team identified some possible opportunities for clarification that should be considered after FERC acts on the TOP and TPL standards.

3. **Definitions:** Do any of the defined terms used within the Reliability Standard need to be refined?

Yes

No

Please explain: The FYRT reviewed the definition of “System Operating Limit” and determined that there is no need to propose modification to the NERC glossary definition of System Operating Limit. While the definition leaves some opportunity for interpretation, FYRT members agreed that such flexibility was by design, and leaves specificity up to the appropriate entities (Independent System Operators and Reliability Coordinators).

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered “No,” please identify which elements require revision, and why:

Yes
 No

While the FYRT is not recommending any specific revisions to the compliance elements at this time, revisions may be necessary after the thorough review in coordination with the TOP and TPL standards.

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered “Yes,” please describe the changes needed to achieve formatting and language consistency:

Yes
 No

Again, the FYRT is not proposing any specific recommendations at this time, but team members do believe that some revisions may be necessary to add clarity and eliminate redundancy with the newly revised TOP and TPL standards.

FAC-010-2.1, FAC-011-2, and FAC-014-2 were written from the context of the concepts found in the TOP and TPL standards in existence at the time. Since that time, significant changes have taken place in the TOP standards (now proposed for consolidation into TOP-001-2, TOP-002-3, TOP-003-2) and in the TPL standards (now proposed for consolidation into TPL-001-4). For instance, the TPL standards have expanded to the extent that may render some portions of FAC-010-2.1 as either obsolete or redundant. And the new TOP standards have changed significantly, focusing more on sharing data, performing Operational Planning Analyses, and ensuring acceptable performance day-ahead. These significant changes in TOP and TPL standards – as well as changes in approaches to writing these standards – necessitates revisiting FAC-010-2.1, FAC-011-2, and FAC-014-2 from a holistic and fundamental perspective in light of these changes.

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered “Yes,” please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

Yes

No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

Yes

No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) Not applicable.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) No.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- AFFIRM
- REVISE
- RETIRE
- DELAY REVIEW

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*): The FYRT is proposing a fourth option for its recommendation – a recommendation to delay the full five-year review until a later date. This review should take place soon after the TOP and TPL standards are approved, assuming these standards are approved, and this recommendation should not be construed to delay the review another five to ten years.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- AFFIRM (*This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.*)
- REVISE
- RETIRE

Technical Justification (*If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR*):

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "[Acceptance Criteria of a Reliability Standard](#)."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

- a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?
- b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?
- c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.
5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.
6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.
8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.⁴ Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities (“entities”) to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines “reliable operation” as: “... operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

⁴ In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention

These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation

The Reliability Standard requirement requires responsible entities to develop a document (*e.g.*, plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting

The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates

The Reliability Standard requirement requires responsible entities to periodically update (*e.g.*, annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice

The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant

The Reliability Standard requirement is redundant with: (i) another FERC-approved Reliability Standard requirement(s); (ii) the ERO compliance and monitoring program; or (iii) a governmental regulation (e.g., Open Access Transmission Tariff, North American Energy Standards Board (“NAESB”), etc.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)

Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?

The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?

The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection (“CIP”) requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?

The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?

The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In other words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?

The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

Five-Year Review Recommendation to Affirm FAC-013-2: Assessment of Transfer Capability for the Near-term Transmission Planning Horizon

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.¹ While FAC-013-2 is not yet due for a review, as it only recently became enforceable on April 1, 2013, it is being reviewed as part of a comprehensive review project for all FAC standards.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **AFFIRMING** FAC-013-2.

¹ The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-013-2

Team Members:

1. John Beck (Chair), Consolidated Edison Co. of New York
2. Michael Steckelberg (Vice Chair), Great River Energy
3. Brian Dale, Georgia Power Company
4. Ruth Kloecker, ITC Holdings
5. Stewart Rake, Luminant Generation Company
6. Ganesh Velumyylum, Northern Indiana Public Service Company
7. Mallory Huggins (Lead Standards Developer), NERC
8. Sean Cavote (Supporting Standards Developer), NERC
9. Ed Dobrowolski (Supporting Standards Developer), NERC

Date Review Completed: MM/DD/YY

DRAFT

Background Information (completed by NERC staff)

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

Yes
 No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

Yes
 No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

Yes
 No

Please explain: FAC-013-1 was not among the most violated standards in 2012.² None of the requirements in FAC-013-1 or FAC-013-2 appear on the 2013 Actively Monitored List.³

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

² The 2012 Compliance Monitoring and Evaluation Annual Report can be found here:
http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.

³ The 2013 Actively Monitored List can be found here:
http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Energ%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

- Yes
 No

While FAC-013-2 is not in the Results-Based Standard template, its requirements are clear, measurable, and enforceable and fulfill the purpose of the Results-Based Standards process by describing a function that is performance-, risk-, or competency-based. The requirements also support one or more of NERC's reliability principles.

R1 is a competency-based requirement; it defines a set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. It requires that Planning Coordinators document their methodology for conducting an annual assessment of Transfer Capability in the Near-Term Transmission Planning Horizon and that the methodology incorporates a variety of reliability-related elements.

R2 is a performance-based requirement; it describes the performance of a particular action. It requires that Planning Coordinators issue their Transfer Capability methodology (and any revisions) to those entities affected by the implementation of that methodology.

R3 has been approved for retirement by NERC's Board of Trustees.

R4 is a performance-based requirement; it describes the performance of a particular action. It requires that Planning Coordinators actually conduct the simulations and assessment for which a methodology was developed under R1.

R5 is a performance-based requirement; it describes the performance of a particular action. It requires that Planning Coordinators make assessment results available to those entities affected by the assessment.

R6 is a performance-based requirement; it describes the performance of a particular action. It requires that Planning Coordinators provide, to affected entities that request it, the data to support their assessments.

Collectively, these requirements support reliability principle 1 ("Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards") and reliability principle 3 ("Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably").

It is not essential that FAC-013-2 be converted into a new template, since the requirements already fulfill the Results-Based Standards guidelines.

DRAFT

Questions for SME Review Team

1. **Paragraph 81:** Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

Yes

No

Please summarize your application of Paragraph 81 Criteria, if any: During Phase 1 of the Paragraph 81 process, the review team received some comments suggesting that parts of R5 and R6 be retired because they are reporting requirements. Reporting requirements can be retired under P81 criteria only if they have little impact on reliability. The FYRT determined that R5 and R6 are necessary because adjacent Planning Coordinators and Transmission Planners within a Planning Coordinator's area need to know the results of Transfer Capability assessments that affect them, and should be able to request data to better understand those assessments.

Comment [MCH1]: We could use more specifics here. What action/behavior results from adjacent PCs and TPs receiving the assessments?

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:
- Is this a Version 0 Reliability Standard?
 - Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
 - Are the requirements consistent with the purpose of the Reliability Standard?

Yes

No

Please summarize your assessment: This is not a Version 0 Reliability Standard; it does not have obviously ambiguous language or language that requires performance that is not measurable; and the requirements are consistent with the purpose of the Reliability Standard.

3. **Definitions:** Do any of the defined terms used within the Reliability Standard need to be refined?

Yes

No

Please explain: None of the defined terms used within the Reliability Standard need to be refined.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered “No,” please identify which elements require revision, and why:

Yes
 No

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered “Yes,” please describe the changes needed to achieve formatting and language consistency:

Yes
 No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered “Yes,” please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

Yes
 No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

Yes
 No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to

be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) Not applicable.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) No.

DRAFT

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- AFFIRM
- REVISE
- RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR):* FAC-013-2 is clear, measurable, enforceable, and reliability-based. Thus, the FYRT recommends affirming it. While TPL-001-4, which is pending FERC approval, also deals with Transmission system planning performance requirements, FAC-013-2 serves the unique purpose of addressing Transfer Capability stress tests, which are not explicitly addressed in TPL-001-4. There would be a reliability gap if FAC-013-2 were to be retired.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
- REVISE
- RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR):*

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "[Acceptance Criteria of a Reliability Standard.](#)"

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

- a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?
- b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?
- c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

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5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.
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7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.
8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.⁴ Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities (“entities”) to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines “reliable operation” as: “... operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

⁴ In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention

These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation

The Reliability Standard requirement requires responsible entities to develop a document (*e.g.*, plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting

The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates

The Reliability Standard requirement requires responsible entities to periodically update (*e.g.*, annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice

The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant

The Reliability Standard requirement is redundant with: (i) another FERC-approved Reliability Standard requirement(s); (ii) the ERO compliance and monitoring program; or (iii) a governmental regulation (e.g., Open Access Transmission Tariff, North American Energy Standards Board (“NAESB”), etc.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)

Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?

The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?

The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection (“CIP”) requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?

The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?

The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In other words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?

The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

FAC Five-Year Review Action Plan

Effort	Task	Description	Lead Organization	Deliverables	Estimated Completion
Internal Standards Process Preparation	Brief the Standards Committee	Informally discuss the work plan for this project with the SC	Standards	SC Talking Points document Five-Year Review Template Standards Announcement	Complete
	Issue Standards Announcement	Invite industry SMEs to serve on the Five-Year Review Team	Standards	Standards Announcement	Complete
	Propose FYRT members	Review FYRT nominations and recommend FYRT members to the SC	Standards	FYRT Roster recommendation for SC	Complete
	Finalize FYRT	Obtain SC approval of Review Team members	Standards Committee	Review Team Approval	Complete
	Advise FYRT members	Advise FYRT members and leadership of status, date range of initial FYRT conference call and face-to-face meeting, and provide documents	Standards	Email to FYRT members (include Doodle for tentative event scheduling) Five-Year Review Template Project Action Plan	Complete
	Internal conference call to discuss five-year review	Finalize recommendations on directives, RBS, and P81	Standards (Mallory, Edd, Sean)	Complete Staff Section of Five-Year Review Template	Complete
Five-Year Review Preparation	Review FYR template and make tentative recommendations	Develop plan for NERC review of directives, RBS, and P81	Standards (Mallory)	Five-Year Review Template	Complete

Effort	Task	Description	Lead Organization	Deliverables	Estimated Completion
	Industry Training webinar	Train industry and FYRT on the five-year review process, particularly as it pertains to this project	Standards	Five-Year Review PowerPoint Five-Year Review Template	Complete
	Initial FYRT conference call	Review Team introductions, confirm receipt of documents, discuss Action Plan, discuss initial NERC recommendations, schedule first face-to-face meeting	Review Team	Meeting Notes	Complete
<i>Formal Five-Year Review</i>	FYRT Meeting	First Five-Year Review Team meeting to develop Draft Five-Year-Review Recommendation	Review Team	Meeting Notes Draft Five-Year Review Recommendations	Complete
	Review Team conference call (if necessary)	Further develop Draft Five-Year-Review Recommendation	Review Team	Revise draft Five-Year Review Recommendations and supporting documents, as needed	Complete
	Review Team conference call(s)	Finalize posting for comment	Review Team	Finalize Five-Year Review Recommendations and supporting documents, as needed	July 11, 2013 - Complete July 17, 2013 (if needed)
	Post recommendations and Standard Authorization Request	Recommend whether the Reliability Standards should be reaffirmed, revised, or withdrawn	Standards	Five-Year Review Recommendations and SAR	TBD – 45-day comment period ideally beginning in July, but no later than August 2
	Webinar	Advise industry of Review Team recommendation	Review Team Chair/Standards	Final Five-Year Review Recommendation PowerPoint	TBD – during posting period

Effort	Task	Description	Lead Organization	Deliverables	Estimated Completion
Post Review Activities	Review Team conference call or Review Team Meeting	Respond to comments on original recommendation; revise as necessary	Review Team	Five-Year Review Consideration of Comments and Final Recommendation document	September 30-October 2, 2013
	Report to Standards Committee	Complete Five-Year Review	Review Team	Provide to Standards Committee industry comments, FYRT response to comments, and recommendation on whether the Reliability Standard should be reaffirmed, revised (SAR), or withdrawn (SAR)	TBD
	Standards Committee action	Act on FYRT recommendation (October 17, 2013)	Standards Committee	Reaffirmation to the BOT or act on SAR	TBD
	Develop SAR (If necessary)				TBD
	Initial Ballot (if necessary)				TBD
	Recirculation Ballot (if necessary)				TBD
	Present to the BOT				TBD

Conference Call Notes

Five-Year Review of FAC Standards

July 11, 2013 | Noon-4 p.m. Eastern

Administrative

1. Introductions

Standards Developer Mallory Huggins initiated the meeting and reviewed the NERC Antitrust Compliance Guidelines, Public Announcement, Participant Conduct Policy, and Email List Policy. She thanked all members and observers for participating in the call and led group introductions. The following members and observers were in attendance:

Name	Company	Member/Observer
John Beck (Chair)	Consolidated Edison of New York	M
Mike Steckelberg (Vice Chair)	Great River Energy	M
Brian Dale	Georgia Power Company	M
Stewart Rake	Luminant Generation Company	M
Ruth Kloecker	ITC Holdings	M
Connie Davis	Cleveland Public Power	O
Kenneth Goldsmith	Alliant Energy	O
Pers-Anders Lof	National Grid	O
Pamalet Mackey	Pacific Gas & Electric	O
Bob Pierce	Duke Energy	O
Jason Snodgrass	Georgia Transmission Corporation	O
Ed Dobrowolski	NERC	M
Mallory Huggins	NERC	M
Sean Cavote	NERC	M

2. Review Meeting Agenda and Objectives

Mallory reviewed the goal of the meeting: to review and refine the recommendations developed since the June 25, 2013 conference call and share additional information and thoughts that could impact the recommendations and their technical justification.

Agenda Items

1. Briefing on Independent Experts Review Panel

- a. Mallory shared information on the recent review of all Reliability Standards by a group of independent experts. She explained that the experts were charged with reviewing all standards from a high-level, holistic perspective to identify requirements that are steady state, requirements that are necessary for reliability but require revision, and requirements that should be retired. The findings of the independent experts were recently released in draft form (beginning on P. 2 of [this Standards Committee action without a meeting from June 21, 2013](#)). In general, the independent experts' recommendations are in line with the direction of the FAC FYRT. The experts did, however, suggest a retirement of FAC-013-2, R2, which the FYRT had not yet considered. Mallory told the team that the report is still in draft form and the FAC-013-2 recommendation should not be considered an explicit directive, but that the FYRT should consider this input in its discussion of FAC-013-2.

2. Status Update on All Standards and Recommendations

- a. FAC-001-1 and FAC-002-1
 - i. Generally, the FYRT continues to support the recommendation to revise FAC-001-1 and FAC-002-1, along with the detail and justification provided.
 - ii. The FYRT discussed FAC-001-1's purpose statement and determined that it would recommend a review of the purpose statement to ensure that it aligns with the standard requirements. In particular, the first clause seems unnecessary and inaccurate, and the reference to performance requirements does not match with the content of the requirements.
 - iii. Additionally, the team considered whether the reference to compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and other planning criteria in FAC-001-1 R1 might be redundant with the same reference in FAC-002-1 R1.2, or whether both references could be unnecessary. The team will recommend consideration of this possible redundancy.
 - iv. While the FYRT received some suggestions for consideration from Chuck Chakravarthi, the Planning Committee member assigned to technically review FAC-001 and FAC-002, and began to discuss them, the team ultimately determined that the suggestions were too detailed to consider at this point in the review.
- b. FAC-003-3
 - i. There was no additional discussion about the recommendation to affirm FAC-003-3.
- c. FAC-008-3

- i. Mallory reported that NERC compliance staff had committed to incorporating clarifications about the meaning of “terminal equipment” and the references to “ratings provided by equipment manufacturers” in R3 in a revised Reliability Standard Audit Worksheet (RSAW). Compliance staff committed to sharing the revised RSAW with the FAC FYRT as soon as it is completed – likely by August or September. The FYRT supported this solution and agreed that no revisions to FAC-008-3 are necessary so long as the concerns cited above are captured and addressed in the RSAW.
- d. FAC-010-2.1, FAC-011-2, FAC-014-2
 - i. The FYRT continues to support the decision to propose a delayed review of FAC-010-2.1, FAC-011-2, and FAC-014-2, and to wait until TOP-001-2, TOP-002-3, TOP-003-2, and TPL-001-4 are acted on at FERC. The team also agreed that the recommendation as written adequately captures the discussion about the definition of System Operating Limit.
- e. FAC-013-2
 - i. Mallory led a discussion in which the team reviewed the FAC-013-2 requirements in more detail to determine if any of them were eligible for retirement under Paragraph 81 criteria. Because R2, R5, and R6 are reporting requirements, the FYRT discussed whether they are truly necessary for reliability. The team determined that R5 and R6 are necessary because adjacent Planning Coordinators and Transmission Planners within a Planning Coordinator’s area need to know the results of Transfer Capability assessments that affect them, and should be able to request data to better understand those assessments. If those entities don’t receive the methodology used for the assessments, as required by R2, they can’t know if the assessments were executed accurately. Ultimately, the team determined that the requirements remain necessary. The FYRT continues to recommend that FAC-013-2 be affirmed as is.
- f. FAC-501-WECC-1
 - i. There was no additional discussion about the plan to review FAC-501-WECC-1 as a parallel project in coordination with WECC. Mallory hopes to have an update by the July 17, 2013 conference call.

3. Review and Update Action Items List

- a. **Mallory** will review all recommendations for references to individual team members and revise them to present the decision of the full FYRT.
- b. **Mallory** will continue to refine the recommendations, and will develop draft Standard Authorization Requests for the revisions proposed to FAC-001-1 and FAC-002-1. She will also try to get additional feedback from other NERC staff on the level of detail that should be included in the recommendations.

- c. **All team members** will review the recommendations before the July 17, 2013 conference call, and share feedback with the rest of the team via email or verbally during the July 17 call.

4. Future Meeting Dates

- a. July 17, 2013, noon-4 p.m. Eastern, Conference Call
- b. September 30-October 2, 2013, ConEd Headquarters, 4 Irving Place, NY, NY 10003

5. Adjourn

- a. The meeting was adjourned at 2 p.m. on July 11, 2013.

Team Roster

FAC Five-Year Review Team

	Participant	Entity
Chair	John Beck	Con Edison
Vice Chair	Michael Steckelberg	Great River Energy
Member	Brian Dale	Georgia Power Company
Member	Ruth Kloecker	ITC Holdings
Member	Stewart Rake	Luminant Generation Company LLC
Member	Ganesh Velummylum	Northern Indiana Public Service Co.
NERC Staff	Mallory Huggins (Lead Standards Developer)	NERC
NERC Staff	Sean Cavote (Supporting Standards Developer)	NERC
NERC Staff	Ed Dobrowolski (Supporting Standards Developer)	NERC
NERC Staff	Laura Hussey (Director of Standards Development)	NERC

Version	Date	Description
1.0	5/13/2013	Initial posting
2.0	5/21/2013	Updated to add new member