NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

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as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.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) for information.

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 Velummylum, 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: 07/19/13

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%2Enerc%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

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.

   Currently, R1 and R2 read as follows:

   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.

   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." 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 are redundant (Criterion B7) and possibly not necessary for reliability, as the requirement to comply with NERC Reliability Standards, applicable Regional criteria, etc. is

built into the ERO framework established in Order 672.[4] A drafting team may determine that the language is not necessary in either standard, but if this language is deemed necessary for reliability, it should be retained in FAC-002-1, R1.2 and removed from FAC-001-1, 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. Currently, R3 reads as follows:

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

[4] *Order* 672 – *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards* is posted here: http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/final_rule_reliability_Order_672.pdf.

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). Currently, R4 reads as follows:

> **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, and the FYRT believes there are opportunities to add clarity to some of the requirements.

    The drafting team should 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 document, with references to examples of what would fulfill the requirement to "publish" in the context of the standard.

    The FYRT also 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.

    Finally, 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.[5] 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.

[5] 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 order 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.