

# **Paragraph 81 Project Technical White Paper**

**December 20, 2012**

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## I. Introduction

On March 15, 2012, the Federal Energy Regulatory Commission (“FERC” or Commission”) issued an order<sup>1</sup> on the North American Electric Reliability Corporation’s (“NERC”) Find, Fix and Track (“FFT”) process that stated in paragraph 81 (“P81”):

The Commission notes that NERC’s FFT initiative is predicated on the view that many violations of requirements currently included in Reliability Standards pose lesser risk to the Bulk-Power System. If so, some current requirements likely provide little protection for Bulk-Power System reliability or may be redundant. The Commission is interested in obtaining views on whether such requirements could be removed from the Reliability Standards with little effect on reliability and an increase in efficiency of the [Electric Reliability Organization] ERO compliance program. If NERC believes that specific Reliability Standards or specific requirements within certain Standards should be revised or removed, we invite NERC to make specific proposals to the Commission identifying the Standards or requirements and setting forth in detail the technical basis for its belief. In addition, or in the alternative, we invite NERC, the Regional Entities and other interested entities to propose appropriate mechanisms to identify and remove from the Commission-approved Reliability Standards unnecessary or redundant requirements. We will not impose a deadline on when these comments should be submitted, but ask that to the extent such comments are submitted NERC, the Regional Entities, and interested entities coordinate to submit their respective comments concurrently.

### A. *Consensus Process*

In response to P81 and the Commission’s request for comments to be coordinated,<sup>2</sup> during June and July 2012, various industry stakeholders, Trade Associations,<sup>3</sup> staff from NERC and staff from the NERC Regions jointly discussed consensus criteria and an initial list of Reliability Standard requirements that appeared to easily satisfy the criteria,

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<sup>1</sup> *North American Electric Reliability Corporation*, 138 FERC ¶ 61,193 at P 81 (2012).

<sup>2</sup> In addition to addressing P81, the consensus effort was also consistent with recommendation #4 set forth in *NERC’s Recommendations to Improve The Standards Development Process* at page 12 (April 2012), which states:

**Recommendation 4: Standards Product Issues** — The NERC board is encouraged to require that the standards development process address: . . . The retirement of standards no longer needed to meet an adequate level of reliability.

<sup>3</sup> Edison Electric Institute, American Public Power Association, National Rural Electric Cooperative Association, Large Public Power Council, Electricity Consumers Resource Council, The Electric Power Supply Association, and Transmission Access Policy Study Group.

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and, thus, could be retired. Specifically, the three parties (industry stakeholders/Trade Associations, staff from NERC, and staff from the NERC Regions) used the following conservative discipline to arrive at the proposed list of requirements to be retired: (i) the development of criteria to determine whether a Reliability Standard requirement should be retired and (ii) the application of this criteria with consultation from Subject Matter Experts (“SME”), with the understanding that if any of the three parties objected to including a requirement it would not be included in the initial phase of the P81 Project. As a result of this process, a draft Standards Authorization Request (“SAR”), including an initial suggested list of requirements for retirement, was drafted and presented to the NERC Standards Committee. Also, the SMEs consulted in this process provided the technical justifications that appear in this technical white paper.

## *B. Standards Committee*

On July 11, 2012, the Standards Committee authorized the draft SAR to be posted for industry comment and formed an interim P81 Standards Drafting Team (“SDT”) to review and respond to comments as well as finalize the SAR. The draft SAR was posted on August 3, 2012 with stakeholder comments due on or before September 4, 2012. Based on the stakeholder comments received, the SDT finalized the SAR, including the criteria and the initial list of Reliability Standard requirements proposed for retirement. On September 28, 2012, the Standards Committee Executive Committee authorized: (a) waiving the 30 day initial comment period and (b) posting the SAR and list of requirements proposed for retirement in the initial phase for a 45-day formal comment period with the formation of a ballot pool during the first 30 days and an initial ballot during the last 10 days of that 45-day comment period.<sup>4</sup>

The purpose of this technical white paper is to set forth the background and technical justification for each of the Reliability Standard requirements proposed for retirement. Stakeholders are requested to review this technical white paper and provide the SDT any: (1) supplemental, additional technical justifications for a requirement(s) and/or (2) concerns with the technical justifications for a requirement(s).

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<sup>4</sup> The following requirements that were presented in the draft SAR were already scheduled to be retired or subsumed via another Standards Development Project that has been approved by stakeholders and the NERC Board of Trustees (or due to be before the Board in November), and, thus, are presented in this technical white paper in Section V for informational purposes only: CIP-001-2a R4; COM-001-1.1 R6; EOP-004-1 R1; EOP-009-0 R2; FAC-008-1 R1.3.5; PRC-008-0 R1; PRC-008-0 R2; PRC-009-0 R1; PRC-009-0 R1.1; PRC-009-0 R1.2; PRC-009-0 R1.3; PRC-009-0 R1.4; PRC-009-0 R2; TOP-001-1a R3; and TOP-005-2a R1. For regulatory efficiency, these requirements will not be presented for comment and vote, and, therefore, will not be presented to the Board of Trustees for retirement or filed with the Commission or Canadian governmental authorities as part of the P81 Project. Those requirements that were not part of the draft SAR, but were added based on stakeholder comments are denoted by a “\*\*” throughout this technical white paper. More detail on each of these requirements is provided below.

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## II. Executive Summary

The SDT developed a set of three criteria and used them to identify requirements that could be eligible for retirement. A summary of the criteria are as follows:

- A. Criterion A (Overarching Criterion): little, if any, benefit or protection to the reliable operation of the BES
- B. Criteria B (Identifying Criteria)
  - B1. Administrative
  - B2. Data Collection/Data Retention
  - B3. Documentation
  - B4. Reporting
  - B5. Periodic Updates
  - B6. Commercial or Business Practice
  - B7. Redundant
- C. Criteria C (Additional data and reference points)
  - C1. Part of a FFT filing
  - C2. Being reviewed in an ongoing Standards Development Project
  - C3. Violation Risk Factor (“VRF”) of the requirement
  - C4. Tier in the 2013 Actively Monitored List (“AML”)
  - C5. Negative impact on NERC’s reliability principles
  - C6. Negative impact on the defense in depth protection of the BES
  - C7. Promotion of results or performance based Reliability Standards

Specifically, for a requirement to be proposed for retirement, it must satisfy both, Criterion A and at least one of the Criteria B. Criteria C were considered as additional information to make a more informed decision.

Based on the criteria above, the SDT proposes to retire the following 36 requirements in 23 Reliability Standard versions:

- BAL-005-0.2b R2
- CIP-003-3 R1.2
- CIP-003-3 R3
- CIP-003-3 R3.1
- CIP-003-3 R3.2
- CIP-003-3 R3.3
- CIP-003-3 R4.2

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- CIP-003-4 R1.2
- CIP-003-4 R3
- CIP-003-4 R3.1
- CIP-003-4 R3.2
- CIP-003-4 R3.3
- CIP-003-4 R4.2
- CIP-005-3a R2.6
- CIP-005-4a R2.6
- CIP-007-3 R7.3
- CIP-007-4 R7.3
- EOP-005-2 R3.1
- FAC-002-1 R2
- FAC-008-1 R2
- FAC-008-1 R3
- FAC-008-3 R4
- FAC-008-3 R5
- FAC-010-2.1 R5\*\*
- FAC-011-2 R5\*\*
- FAC-013-2 R3
- INT-007-1 R1.2
- IRO-016-1 R2
- NUC-001-2 R9.1
- NUC-001-2 R9.1.1
- NUC-001-2 R9.1.2
- NUC-001-2 R9.1.3
- NUC-001-2 R9.1.4
- PRC-010-0 R2
- PRC-022-1 R2
- VAR-001-2 R5\*\*

A table is included in Appendix A with the Reliability Standard requirements proposed for retirement and a cross-reference to the associated criteria.

### III. Criteria

The P81 Project focuses on identifying FERC-approved Reliability Standard requirements that satisfy the criteria set forth below.<sup>5</sup> Specifically, for a Reliability Standard requirement to be proposed for retirement it must satisfy **both**: (i) Criterion A

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<sup>5</sup> The scope of future phases of the P81 Project has not yet been determined. When the scope is considered, the criteria set forth herein may be a useful guide to appropriate criteria for those phases.

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(the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). The purpose of having these two levels of criteria was to confine the review and consideration of requirements to only those requirements that clearly need not be included in the mandatory Reliability Standards. Also, Criteria A and B were designed so there would be no rewriting or consolidation of requirements, and the technical merits of retiring the requirements did not require significant research and vetting. In addition, for each Reliability Standard requirement proposed for retirement, the data and reference points set forth below in Criteria C were considered to make a more informed decision on whether to proceed with retirement. Lastly, for each requirement proposed for retirement, any increase to the efficiency of the ERO compliance program is addressed.

## *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 removed with little effect on reliability and whose removal will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is or is not 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 for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

### **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.



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This criterion is designed to identify requirements that can be removed 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 eliminated 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

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(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 removed 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)*

To assist in the determination of whether to proceed with the requirement of a Reliability Standard requirement that satisfies both Criteria A and B, the following data and reference points shall be considered to make a more informed decision:

### **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 on-going Standards Development Project?**

The application of this criterion involves determining whether the requirement proposed for retirement is part of an active on-going Standards Development Project, with a consideration of the point in the process that Project is at. If the requirement has been passed by the stakeholders and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not be included in the P81 project to promote regulatory efficiency. 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; or, other requirements that based on the specific facts and circumstances of that requirement indicate it should be retired via the P81 Project first rather than waiting for another Standards Development Project to retire it, particularly as a way to increase the efficiencies of the ERO compliance program. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project will 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, 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

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Lower VRF is not dispositive that it qualifies for retirement. 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 of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired if its retirement harms 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 2013 AML does the Reliability Standard requirement fall?**

The application of this criterion involves identifying whether the requirement proposed for retirement is on the 2013 AML, with particular consideration for any requirement in the first tier of the 2013 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.

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- 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 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 to protect the BES.

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

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

## **IV. The Initial Phase Reliability Standards Requirements Proposed for Retirement**

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The following lists the requirements proposed for retirement with details of the assessment resulting from the applicability of the criteria above.

## BAL-005-0.2b R2 – Automatic Generation Control

- R2.** Each Balancing Authority shall maintain Regulating Reserve that can be controlled by AGC to meet the Control Performance Standard.

### **Background/Commission Directives**

BAL-005-0 was filed for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>6</sup> Also, the Commission accepted an errata filing to BAL-005-0.1b, which replaced Appendix 1 with a corrected version of a Commission-approved interpretation, and made an internal reference correction in the interpretation, thus resulting in BAL-005-0.2b.<sup>7</sup>

In Order No. 693 at paragraph 387, the Commission stated that:

The goal of this Reliability Standard is to maintain Interconnection frequency by requiring that all generation, transmission, and customer load be within the metered boundaries of a balancing authority area, and establishing the functional requirements for the balancing authority's regulation service, including its calculation of ACE.

At paragraph 396, the Commission stated:

On this issue, the Commission directs the ERO to modify BAL-005-0 through the Reliability Standards development process to develop a process to calculate the minimum regulating reserve for a balancing authority, taking into account expected load and generation variation and transactions being ramped into or out of the balancing authority.

This Commission directive is unaffected by the proposed retirement of BAL-005-0.2b R2.

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<sup>6</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>7</sup> Letter Order, Petition of the North American Electric Reliability Corporation for Approval of Errata Changes to Seven Reliability Standards, Docket No. RD12-4-000 (September 13, 2012).

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Additionally, when adjusting the VRF for the previous version, BAL-005-0.1b R2, from Lower to High, the Commission stated that:<sup>8</sup>

While theoretically, CPS can be met without the use of AGC, for example, when the AGC system is malfunctioning, the Commission believes, in practice, that AGC is the most dependable and effective means for multiple balancing authorities in an Interconnection to collectively meet CPS requirements in tandem while minimizing assistance from each other in this regard. Human reaction is neither fast enough nor dependable enough in this repetitive task to provide the immediate and continuous support to correct for Interconnection frequency drift. Further, the failure to use AGC presents a higher risk that immediate load shedding will need to be implemented after the sudden loss of generation or an unforeseen significant load increase and, thus, the failure to use AGC subjects the Bulk-Power System to a higher risk of instability.

However, the fact that the VRF for BAL-005-0.2b R2 is High is not indicative of its actual impact on the BES as explained in further detail below. Also, no Commission directive is impacted by BAL-005-0.2b R2.

## Technical Justification

The stated reliability purpose of BAL-005-0.2b is to establish requirements for Balancing Authority Automatic Generation Control (“AGC”) necessary to calculate Area Control Error (“ACE”) and to routinely deploy the Regulating Reserve. The standard also ensures that all facilities and load electrically synchronized to the Interconnection are included within the metered boundary of a Balancing Area so that balancing of resources and demand can be achieved. The reliability purpose and objectives of BAL-005-0.2b are unaffected by the proposed retirement of R2.

A Balancing Authority must use AGC to control its Regulating Reserves to meet the Control Performance Standards (“CPS”) as set forth in BAL-001-0.1a R1 and R2. Although for a short period of time (as the Commission stated during an AGC malfunction) a Balancing Authority may be able to meet its CPS obligations without AGC, it cannot do so for any extended period of time, and, therefore, Balancing Authorities must use AGC to control its Regulating Reserves to satisfy its obligations under BAL-001-0.1a R1 and R2. Given this fact, it is redundant to also have BAL-005-0.2b R2 set forth the following statement: “Each Balancing Authority shall maintain Regulating Reserve that can be controlled by AGC to meet the Control Performance Standard.” (Criterion B7). It is the duplicative nature of having two requirements requiring the same activity that does little, if anything, to benefit or protect reliable operation of the BES. (Criterion A). In other words, without the existence of BAL-005-0.2b R2, Balancing Authorities must still have Regulating Reserves that can be controlled by AGC to satisfy the CPS in BAL-001-0.1a R1 and R2.

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<sup>8</sup> *North American Electric Reliability Corporation*, 121 FERC ¶ 61,179 at P 50 (2007).

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Also, the retirement of BAL-005-0.2b R2 would increase the efficiency of the ERO compliance program because NERC and the Regional Entities would be able to focus their time and resources on monitoring compliance on BAL-001-0.1a R1 and R2, which are results-based requirements, versus monitoring compliance with both BAL-001-0.1a R1 and R2 as well as the static statement in BAL-005-0.2b R2. Therefore, retiring BAL-005-0.2b R2 will provide for increased efficiencies in the ERO compliance program.

## **Criterion A**

Without the existence of BAL-005-0.2b R2, Balancing Authorities must still have Regulating Reserves that can be controlled by AGC to satisfy the CPS in BAL-001-0.1a R1 and R2. Having two requirements requiring a Balancing Authority to conduct the same activity or task does little, if anything, to benefit or protect the reliable operation of the BES because it is duplicative.

## **Criteria B**

- Criterion B7 (Redundant)

## **Criteria C**

1. BAL-005-0.2b R2 has not been part of a FFT filing.
2. BAL-005-0.2b R2 is currently scheduled to be included in Standards Development Project 2010-14.2, which is Phase II of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent. Given that Project 2010-14.2 is currently not an active Standards Development Project, it remains appropriate to retire BAL-005-0.2b R2 via the P81 Project.
3. The VRF for BAL-005-0.2b R2 is High. Given the redundant nature of BAL-005-0.2b R2, the High VRF is not dispositive of whether or not it should be retired since BAL-001-0.1a R1 and R2 accomplishes the important reliability requirement of Balancing Authorities maintaining Regulating Reserves that can be controlled by AGC to satisfy CPS.
4. BAL-005-0.2b R2 is not part of the 2013 AML.
5. The redundant nature of BAL-005-0.2b R2 with BAL-001-0.1a R1 and R2 also indicates that the retirement of BAL-005-0.2b R2 does not pose a negative impact to NERC's published and posted reliability principles. The two reliability principles applicable to BAL-005-0.2b R2 are the following:

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.

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- 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.
6. Retirement of BAL-005-0.2b R2 does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability. As discussed above, given that BAL-001-0.1a R1 and R2 already require that AGC be used to control Regulating Reserves, there is no risk or gap to reliability resulting from the retirement of BAL-005-0.2b R2.
  7. Retirement of BAL-005-0.2b R2 promotes a results-based approach, because it is retiring a static requirement while BAL-001.1a R1 and R2, which are more dynamic and results-based requirements, will remain in effect.

Accordingly, for the above reasons, it is appropriate to retire BAL-005-0.2b R2.

## CIP-003-3, -4 R1.2 – Cyber Security – Security Management Controls

- R1.2.** The cyber security policy is readily available to all personnel who have access to, or are responsible for, Critical Cyber Assets.

### **Background/Commission Directives**

CIP-003-1 was filed for Commission approval on August 28, 2006 in Docket No. RM06-16-000 and was approved on January 18, 2008 in Order No. 706.<sup>9</sup> CIP-003-2 was filed for Commission approval on May 22, 2009 in Docket Nos. RM06-22-000 and RD09-7-000 and was approved on September 30, 2009.<sup>10</sup> CIP-003-3 was filed for Commission approval on December 29, 2009 in Docket No. RD09-7-002 and was approved on March 31, 2010.<sup>11</sup> CIP-003-4 was submitted for Commission approval on February 10, 2011 in Docket No. RM11-11-000 and was approved on April 19, 2012.<sup>12</sup>

In Order No. 706 at paragraph 342 the Commission stated that:

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<sup>9</sup> *Mandatory Reliability Standards for Critical Infrastructure Protection*, 122 FERC ¶ 61,040 (2008) (“Order No. 706”), *order on reh’g*, Order No. 706-A, 123 FERC ¶ 61,174 (2008), *order on clarification*, Order No. 706-B, 126 FERC ¶ 61,229, *order on clarification*, Order No. 706-C, 127 FERC ¶ 61,273 (2009).

<sup>10</sup> *Order Approving Revised Reliability Standard for Critical Infrastructure Protection and Requiring Compliance Filing*, 128 FERC ¶ 61,291 (2009), *order denying reh’g and granting clarification*, 129 FERC ¶ 61,236 (2009) (approving Version 2 of the CIP Reliability Standards).

<sup>11</sup> *Order on Compliance* 130 FERC ¶ 61,271 (2010).

<sup>12</sup> *Version 4 Critical Infrastructure Protection Reliability Standards*, 139 FERC ¶ 61,058 (2012).



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Reliability Standard CIP-003-1 seeks to ensure that each responsible entity has minimum security management controls in place to protect the critical cyber assets identified pursuant to CIP-002-1. To achieve this goal, a responsible entity must develop a cyber security policy that represents management's commitment and ability to secure its critical cyber assets. It also must designate a senior manager to direct the cyber security program and to approve any exception to the policy.

All outstanding directives in Order No. 706 will be addressed in Version 5 of the CIP Standards and the retirement of CIP-003-3, -4 R1.2 does not impact a Commission directive.

## **Technical Justification**

The importance of the cyber security policy as representing management's commitment and ability to secure critical cyber assets is overshadowed by the rigorous and specific training, procedural and process related requirements of the CIP Standards. These trainings, procedures and processes render having the cyber security policy readily available an unnecessary requirement. In other words, whether CIP personnel are completing a typical CIP requirement cyber security task or responding to an immediate situation, they will act via their specific training, processes and procedures and not the overarching cyber security policy. Stated another way, CIP personnel will act via their specific training, processes and procedures which reflect the overarching cyber security policy. Consequently, the cyber security policy's generalized guidance on compliance with the CIP requirements is not a document that adds value to personnel protecting the BES from a cyber attack on a day-to-day basis.

Furthermore, to implement CIP-003-3, -4 R1.2 entities have undertaken a variety of administrative solutions including kiosks dedicated to computers with the cyber security policy, posting the policy on the company intranet, having copies available in work stations, at common area desks in generating stations and substations, etc. Therefore, although the cyber security policy is readily available for all personnel who have access to, or are responsible for, Critical Cyber Assets, these personnel are specifically and appropriately focused on implementing the procedures and processes required by CIP Reliability Standards such as CIP-007-3 R1, which states as follows:

Test Procedures — The Responsible Entity shall ensure that new Cyber Assets and significant changes to existing Cyber Assets within the Electronic Security Perimeter do not adversely affect existing cyber security controls. For purposes of Standard CIP-007-3, a significant change shall, at a minimum, include implementation of security patches, cumulative service packs, vendor releases, and version upgrades of operating systems, applications, database platforms, or other third-party software or firmware.

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Generally the cyber security policy will cite CIP-007-3 R1 as a requirement, and may refer to procedures related to CIP-007-3 R1, but will not have, nor is it required to have, the detail necessary to implement CIP-007-3 R1. In some larger companies, it is also common to have specific procedures on how to accomplish requirements such as CIP-007-3 R1 in a control center versus a generating plant or substation, and it may be different CIP personnel implementing these procedures in locations many hundreds of miles, states or Interconnections away from each other. The value of a more general cyber security policy to these individuals is minimal, at best, and, therefore, does not support reliability. Also, making it readily available at all office locations is an unnecessarily burdensome administrative task.

Moreover, to place every procedure and process to comply with CIP in the cyber security policy is also not practical or effective, because such a large policy will only distract from CIP personnel being able to specifically focus on the task before them. As already stated, there are likely some differences between implementing a requirement like CIP-007-1 R1 in a control center that may be located in one state and for generators located several states and hundreds of miles away. Thus, making the cyber security policy readily available is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES (Criteria A and B1).

In this context, also consider the inefficiencies CIP-003-3, -4 R1.2 may be causing the ERO compliance program. In companies with hundreds of personnel who have access to, or are responsible for, Critical Cyber Assets in multiple states and Interconnections, the ERO may expend a significant amount of time and resources to monitor compliance with CIP-003-3, -4 R1.2 via a review of kiosks, intranet sites, office cubicles, desks, etc in multiple locations. Accordingly, considerable efficiency gains will be obtained for the ERO's compliance program if CIP-003-3, -4 R1.2 is retired.

## **Criterion A**

Making the cyber security policy readily available is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

- Criterion B1 (Administrative)

## **Criteria C**

1. CIP-003-3, -4 R1.2 has been part of a FFT filing.<sup>13</sup>
2. As is the case with all the CIP requirements (other than CIP-001-2a R4) proposed for retirement in this technical paper, CIP-003-3, -4 R1.2 is part of an on-going Standards Development Project 2008-06 (Cyber Security) ("CIP V5"). The P81 SDT has coordinated its efforts with the chair of Project 2008-06. There is no conflict between CIP requirements proposed in this technical white paper for

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<sup>13</sup> NERC FFT Informational Filing, Docket No. RC12-1-000 (October 31, 2011).

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retirement and the direction of Project 2008-06. The CIP V5 requirements are not Board of Trustee or Commission approved, and, even if they were, the effective date of CIP V5 is unknown and likely at least a year, maybe more, into the future. Thus, unlike the other requirements presented here for informational purposes, it is appropriate to maintain all the CIP requirements discussed in this technical paper within the scope of the P81 Project to secure the efficiency gains resulting to the ERO compliance program from their retirement.

3. CIP-003-3, -4 R1.2 has a Lower VRF. As explained above, CIP-003-3, -4 R1.2 is not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
4. CIP-003-3,-4 R1.2 is in the second tier of the AML. As explained above, CIP-003-3, -4 R1.2 is not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
5. Given its administrative nature, CIP-003-3, -4 R1.2 does not negatively impact NERC's published and posted reliability principles. The two reliability principles that appear applicable to CIP-003-3, -4 R1.2 are the following:

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 8. Bulk power systems shall be protected from malicious physical or cyber attacks.

As stated above, other CIP requirements are replete with the requirements that CIP personnel implement to protect the BES from cyber attacks.

6. Retiring CIP-003-3, -4 R1.2 does not negatively impact defense in depth because no other requirement depends on the cyber security policy being readily available. Therefore, the removal of CIP-003,-3,-4 R1.2 cannot have a negative impact on defense in depth.
7. Retirement of CIP-003-3, -4 R1.2 promotes a results-based approach because the requirement is mechanistic and administrative, and does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire CIP-003-3, -4 R1.2.

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## CIP-003-3, -4 R3, R3.1, R3.2, R3.3 – Cyber Security – Security Management Controls

- R3.** Exceptions – Instances where the Responsible Entity cannot conform to its cyber security policy must be documented as exceptions and authorized by the senior manager or delegate(s).
- R3.1.** Exceptions to the Responsible Entity’s cyber security policy must be documented within thirty days of being approved by the senior manager or delegate(s).
- R3.2.** Documented exceptions to the cyber security policy must include an explanation as to why the exception is necessary and any compensating measures.
- R3.3.** Authorized exceptions to the cyber security policy must be reviewed and approved annually by the senior manager or delegate(s) to ensure the exceptions are still required and valid. Such review and approval shall be documented.

### **Background/Commission Directives**

CIP-003-1 was filed for Commission approval on August 28, 2006 in Docket No. RM06-16-000 and was approved on January 18, 2008 in Order No. 706.<sup>14</sup> CIP-003-2 was filed for Commission approval on May 22, 2009 in Docket Nos. RM06-22-000 and RD09-7-000 and was approved on September 30, 2009.<sup>15</sup> CIP-003-3 was filed for Commission approval on December 29, 2009 in Docket No. RD09-7-002 and was approved on March 31, 2010.<sup>16</sup> CIP-003-4 was submitted for Commission approval on February 10, 2011 in Docket No. RM11-11-000 and was approved on April 19, 2012.<sup>17</sup>

In Order No. 706 at paragraphs 373 and 376 the Commission stated that:

Requirement R3 provides that a responsible entity must document exceptions to its policy with documentation and senior management approval. The Commission is concerned that, if exceptions mount, there would come a point where the exceptions rather than the rule prevail. In such a situation, it is questionable whether the responsible entity is

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<sup>14</sup> *Mandatory Reliability Standards for Critical Infrastructure Protection*, 122 FERC ¶ 61,040 (2008) (“Order No. 706”), *order on reh’g*, Order No. 706-A, 123 FERC ¶ 61,174 (2008), *order on clarification*, Order No. 706-B, 126 FERC ¶ 61,229, *order on clarification*, Order No. 706-C, 127 FERC ¶ 61,273 (2009).

<sup>15</sup> *Order Approving Revised Reliability Standard for Critical Infrastructure Protection and Requiring Compliance Filing*, 128 FERC ¶ 61,291 (2009), *order denying reh’g and granting clarification*, 129 FERC ¶ 61,236 (2009) (approving Version 2 of the CIP Reliability Standards).

<sup>16</sup> *Order on Compliance* 130 FERC ¶ 61,271 (2010).

<sup>17</sup> *Version 4 Critical Infrastructure Protection Reliability Standards*, 139 FERC ¶ 61,058 (2012).

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actually implementing a security policy. We therefore believe that the Regional Entities should perform an oversight role in providing accountability of a responsible entity that excepts itself from compliance with the provisions of its cyber security policy. Further, we believe that such oversight would impose a limited additional burden on a responsible entity because Requirement R3 currently requires documentation of exceptions.

Further, the Commission adopts its CIP NOPR proposal and directs the ERO to clarify that the exceptions mentioned in Requirements R2.3 and R3 of CIP-003-1 do not except responsible entities from the Requirements of the CIP Reliability Standards. In response to EEI, we believe that this clarification is needed because, for example, it is important that a responsible entity understand that exceptions that individually may be acceptable must not lead cumulatively to results that undermine compliance with the Requirements themselves.

All outstanding directives in Order No. 706 will be addressed in Version 5 of the CIP Standards and the retirement of CIP-003-3, -4 R3, R3.1, R3.2, and R3.3 do not impact a Commission directive.

## **Technical Justification**

CIP-003-3, -4 R3, R3.1, R3.2, and R3.3 (CIP exception requirements) have proven not to be useful and have been subject to misinterpretation. For instance, although the CIP exception requirements have not been available for use to exempt an entity from compliance with any requirement of any Reliability Standard, based on questions received by NERC CIP Staff, entities may be interpreting the CIP exception requirements to allow for such an exemption. The CIP exception requirements only apply to exceptions to internal corporate policy, and only in cases where the policy exceeds a Reliability Standard requirement or addresses an issue that is not covered in a Reliability Standard. For example, if an internal corporate policy statement requires that all passwords be a minimum of eight characters in length, and be changed every 30 days, which is over and above what is required in CIP-007-3 R5.3, the CIP exception requirements could be invoked for internal governance purposes to lessen the corporate requirement back to the password requirements in CIP-007-3 R5.3, but under no circumstances do the CIP exception requirements authorize the implementation of security measures less than what is required in CIP-007-3 R5.3.

The retirement of the CIP exception requirements would not impact an entity's ability to maintain such an exception process within their corporate policy governance procedures, if it so desired. Consequently, the CIP exception requirements were always an internal administrative and documentation requirement that is outside the scope of the other CIP requirements (Criteria B1 and B3). In this context, the CIP exception requirements do not support the level of reliability set forth in the Reliability Standards, and are unnecessarily burdensome because they have resulted in entities implementing practices

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due to a misinterpretation of the requirement that has caused them to allocate time and resources to tasks that are misaligned with the requirements themselves. Unfortunately, this misunderstanding has also impacted the efficiency of the ERO compliance program because of the amount of time and resources needed to clear up the misunderstanding and coach entities on the meaning of the CIP exception requirements. These inefficiencies would be eliminated with the retirement of the CIP exception requirements. Accordingly, as explained, the CIP exception requirements are an administrative tool for internal corporate governance procedures, and, therefore, are not requirements that are necessary or directly protect the BES from a cyber attack, the tasks associated with these requirements do little, if anything, to benefit or protect the reliable operation of the BES. (Criterion A).

## **Criterion A**

The CIP exception requirements are a tool for internal corporate governance procedures and is not a requirement directly protecting the BES from a cyber attack, and, therefore, the tasks associated with these requirements do little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

- Criterion B1 (Administrative)
- Criterion B3 (Documentation)

## **Criteria C**

1. The CIP exception requirements have been part of a FFT filing.<sup>18</sup>
2. The CIP exception requirements are part of an on-going Standards Development Project 2008-06 (Cyber Security). As detailed in the discussion of CIP-003-3, -4 R1.2, the P81 SDT has coordinated its efforts with the chair of Project 2008-06 and there is no conflict between the CIP exception requirements proposed in this technical white paper for retirement and the direction of Project 2008-06.
3. The CIP exception requirements each have a Lower VRF. As explained above, they are not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
4. The CIP exception requirements are on the third tier of the AML. As explained above, they are not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
5. Given the administrative and unnecessary nature of the CIP exception requirements in relation to protecting the BES from cyber attacks, retirement does not pose any negative impact to NERC's published and posted reliability

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<sup>18</sup> NERC FFT Informational Filing, Docket No. RC12-7-000 (January 31, 2012); NERC FFT Informational Filing, Docket No. RC12-6-000 (December 30, 2011).

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principles, of which only Principle 8 appears to apply: “Bulk power systems shall be protected from malicious physical or cyber attacks.”

6. Retiring the CIP exception requirements does not negatively impact any defense in depth strategy because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. Retirement of the CIP exception requirements promotes a results-based approach because the CIP exception requirements are approaches that entities may voluntarily take to handle internal corporate governance procedures, and, therefore, do not provide the foundation for performing a required reliability task.

Accordingly, for the above reasons, it is appropriate to retire the following CIP exception requirements: CIP-003-3, -4 R3, R3.1, R3.2, and R3.3.

## *CIP-003-3, -4 R4.2 - Cyber Security – Security Management Controls*

**R4.2.** The Responsible Entity shall classify information to be protected under this program based on the sensitivity of the Critical Cyber Asset information.

### **Background/Commission Directives**

CIP-003-1 was filed for Commission approval on August 28, 2006 in Docket No. RM06-16-000 and was approved on January 18, 2008 in Order No. 706.<sup>19</sup> CIP-003-2 was filed for Commission approval on May 22, 2009 in Docket Nos. RM06-22-000 and RD09-7-000 and was approved on September 30, 2009.<sup>20</sup> CIP-003-3 was filed for Commission approval on December 29, 2009 in Docket No. RD09-7-002 and was approved on March 31, 2010.<sup>21</sup> CIP-003-4 was submitted for Commission approval on February 10, 2011 in Docket No. RM11-11-000 and was approved on April 19, 2012.<sup>22</sup> In Order No. 706, the Commission did not specifically address CIP-003-3, -4 R4.2.

All outstanding directives in Order No. 706 will be addressed in Version 5 of the CIP Standards and the retirement of CIP-003-3, -4 R4.2 does not impact a Commission directive.

### **Technical Justification**

The task of classifying Critical Cyber Information “based on the sensitivity” does little, if anything, to benefit or protect the reliable operation of the BES, and is an unnecessarily

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<sup>19</sup> *Mandatory Reliability Standards for Critical Infrastructure Protection*, 122 FERC ¶ 61,040 (2008) (“Order No. 706”).

<sup>20</sup> *Order Approving Revised Reliability Standard for Critical Infrastructure Protection and Requiring Compliance Filing*, 128 FERC ¶ 61,291 (2009), *order denying reh’g and granting clarification*, 129 FERC ¶ 61,236 (2009) (approving Version 2 of the CIP Reliability Standards)).

<sup>21</sup> *Order on Compliance* 130 FERC ¶ 61,271 (2010).

<sup>22</sup> *Version 4 Critical Infrastructure Protection Reliability Standards*, 139 FERC ¶ 61,058, (2012).

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administrative and a documentation task that is redundant with CIP-003-3, -4 R4 (Criteria A, B1, B3 and B7). Specifically, CIP-003-3, -4 R4<sup>23</sup> already requires the classification of information associated with Critical Cyber Assets. The only difference between R4 and R4.2 is that the subjective term “based on the sensitivity” has been added, thus, making it essentially redundant. Further, CIP-003-3, -4 R4 requires the entity to develop classifications based on a subjective understanding of sensitivity (*i.e.*, no clear connection to serving reliability), the requirement does not support reliability. In this context, classifying based on sensitivity becomes an administrative task that becomes necessarily burdensome, because of all the possible ramifications “based on sensitivity” can produce, and, therefore, require SMEs to decide on and reduce to writing in a documented program. This is time and effort that could be better spent on other CIP activities that provide value to cyber security and actively protect the BES. For similar reasons, retiring CIP-003-3, -4 R4.2 and the term “based on sensitivity” would increase the efficiencies of the ERO compliance program on several levels. The ERO would not spend time and resources on reviewing whether an entity’s documentation contained classifications “based on sensitivity,” and, instead would be able to focus its time and resources monitoring compliance with the entity’s program to identify, classify, and protect information associated with Critical Cyber Assets (R4), without any distraction on monitoring the subjective implementation of classifications based on sensitivity (R4.2).

## Criterion A

The task of classifying Critical Cyber Information “based on the sensitivity” does little, if anything, to benefit or protect the reliable operation of the BES, and is an administrative and a documentation task that is redundant with CIP-003-3, -4 R4.

## Criteria B

- Criterion B1 (Administrative)
- Criterion B3 (Documentation)
- Criterion B7 (Redundant)

## Criteria C

1. CIP-003-3, -4 R4.2 has been part of a FFT filing.<sup>24</sup>
2. CIP-003-3, -4 R4.2 is part of an on-going Standards Development Project 2008-06 (Cyber Security). As detailed in the discussion of CIP-003-3, -4 R1.2, the P81 SDT has coordinated its efforts with the chair of Project 2008-06 and there is no conflict between retirement of CIP-003-3, -4 R4.2 and the direction of Project 2008-06.

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<sup>23</sup> “**R4.** Information Protection — The Responsible Entity shall implement and document a program to identify, classify, and protect information associated with Critical Cyber Assets.”

<sup>24</sup> NERC FFT Informational Filing, Docket No. RC12-7-000 (January 31, 2012); NERC FFT Informational Filing, Docket No. RC12-1-000 (October 31, 2011).



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3. CIP-003-3, -4 R4.2 has a Lower VRF. As explained above, CIP-003-3, -4 R4.2 is not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
4. CIP-003-3, -4 R4.2 is on the third tier of the AML. As explained above, CIP-003-3, -4 R4.2 is not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
5. Given the unnecessary and redundant nature of this requirement, retirement does not pose any negative impact to NERC's published and posted reliability principle No. 8 which appears to apply: "Bulk power systems shall be protected from malicious physical or cyber attacks."
6. Retirement of CIP-003-3, -4 R4.2 does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. Retirement of CIP-003-3, -4 R4.2 promotes a results-based approach because retiring CIP-003-3, -4 R4.2 moves away from prescriptive, checklist of documentation approach to Reliability Standard requirements.

Accordingly, for the above reasons, it is appropriate to retire CIP-003-3, -4 R4.2.

## *CIP-005-3a, -4a R2.6 – Cyber Security – Electronic Security Perimeter(s)*

- R2.6.** Appropriate Use Banner -- Where technically feasible, electronic access control devices shall display an appropriate use banner on the user screen upon all interactive access attempts. The Responsible Entity shall maintain a document identifying the content of the banner.

### **Background/Commission Directives**

CIP-005-1 was filed for Commission approval on August 28, 2006 in Docket No. RM06-16-000 and was approved on January 18, 2008 in Order No. 706.<sup>25</sup> CIP-005-2 was filed for Commission approval on May 22, 2009 in Docket Nos. RD09-7-000 and RM06-22-000 and was approved on September 30, 2009.<sup>26</sup> CIP-005-2a was filed for Commission approval on April 21, 2010 in Docket No. RD10-12-000 and was approved by

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<sup>25</sup> *Mandatory Reliability Standards for Critical Infrastructure Protection*, 122 FERC ¶ 61,040 (2008) ("Order No. 706").

<sup>26</sup> *Order Approving Revised Reliability Standard for Critical Infrastructure Protection and Requiring Compliance Filing*, 128 FERC ¶ 61,291 (2009), *order denying reh'g and granting clarification*, 129 FERC ¶ 61,236 (2009) (approving Version 2 of the CIP Reliability Standards)).

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unpublished letter order on February 2, 2011.<sup>27</sup> CIP-005-3 was filed for Commission approval on December 29, 2009 in Docket No. RD09-7-002 and was approved on March 31, 2010.<sup>28</sup> CIP-005-3a was filed for Commission approval on April 21, 2010 in Docket No. RD10-12-000 and was approved by an unpublished letter order on February 2, 2011.<sup>29</sup> CIP-005-4 was filed for Commission approval on February 10, 2011 in Docket No. RM11-11-000 and was approved on April 19, 2012 in Order No. 761.<sup>30</sup> CIP-005-4a was filed for Commission approval as errata to the CIP Version 4 Petition on April 12, 2011 in Docket No. RM11-11-000 and was approved on April 19, 2012 in Order No 761, the Final Rule on the CIP Version 4 standards.<sup>31</sup>

In Order 706 at paragraph 505 the Commission noted that:

Requirement R2 of CIP-005-1 requires a responsible entity to implement organizational processes and technical and procedural mechanisms for control of electronic access at all electronic access points to the electronic security perimeter.

All outstanding directives in Order No. 706 will be addressed in Version 5 of the CIP Standards and the retirement of CIP-005-3, -4 R2.6 does not impact a Commission directive.

## Technical Justification

The implementation of an appropriate use banner (“banner”) on a user’s screen for all interactive access attempts into the Electronic Security Perimeter (“ESP”) is an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES. Specifically, the banner does not support reliability because people who intend to inappropriately use sites will simply ignore the banner. (Criterion A). The banner is also an administrative task since it simply requires a message be displayed on an access screen. Furthermore, the implementation and administration of a non-beneficial tool, such as the banner, therefore creates a needlessly burdensome task. As mentioned, above, the ineffectiveness of the banner also indicates that it does not support reliability. (Criteria B1 and B3). In addition, banners of this type are generally considered to be a form of legal protection or mitigation of liability, rather than security protection. Furthermore, the banner does not ensure a proper or secure access point configuration

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<sup>27</sup> Letter Order, Petition of the North American Electric Reliability Corporation for Approval of Interpretation to Reliability Standard CIP-005-1, Cyber Security, Electronic Security Perimeter(s), Section 4.2.2 and Requirement R1.3., Docket RD10-12-000, (February 2, 2011).

<sup>28</sup> *Order on Compliance* 130 FERC ¶ 61,271 (2010).

<sup>29</sup> Letter Order, Petition of the North American Electric Reliability Corporation for Approval of Interpretation to Reliability Standard CIP-005-1, Cyber Security, Electronic Security Perimeter(s), Section 4.2.2 and Requirement R1.3., Docket RD10-12-000, (February 2, 2011).

<sup>30</sup> *Version 4 Critical Infrastructure Protection Reliability Standards*, 139 FERC ¶ 61,058 (2012).

<sup>31</sup> *Id.*

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which is generally the purpose of CIP-005-3a, -4a. Further, this requirement has also been the subject of numerous TFEs for devices that cannot support such a banner, and hence has diverted resources from more productive efforts. Thus, the ERO's compliance program would become more efficient if CIP-005-3a, -4a R2.6 was retired, because ERO time and resources could be reallocated to monitor compliance with the remainder of CIP-005-3a, -4a, which provides for more effective controls of electronic access at all electronic access points into the ESP.

## Criterion A

The implementation of an appropriate use banner on a user's screen for all interactive access attempts into the ESP is an activity or task that does little, if anything, to benefit or protect reliable operation of the BES, because it is administrative and a static electronic message that is not an effective deterrent or control against unauthorized access.

## Criteria B

- Criterion B1 (Administrative)
- Criterion B3 (Documentation)

## Criteria C

1. CIP-005-3a, -4a R2.6 has been part of a FFT filing.<sup>32</sup>
2. CIP-005-3a, -4a R2.6 is part of an on-going Standards Development Project 2008-06 (Cyber Security). As detailed in the discussion of CIP-003-3, -4 R1.2, the P81 SDT has coordinated its efforts with the chair of Project 2008-06 and there is no conflict between retirement of CIP-005-3a, -4a R2.6 and the direction of Project 2008-06.
3. The VRF for CIP-005-3a, -4a R2.6 is Lower. As explained above, CIP-005-3a, -4a R2.6 is not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
4. CIP-005-3a, -4a R2.6 is on the first tier of the AML; however, given its clear ineffective nature the placement on the first tier is not dispositive of whether it should be retired.
5. Reliability principle No. 8 – “Bulk power systems shall be protected from malicious physical or cyber attacks” – is not implicated or negatively impacted by the retirement of CIP-005-3a, -4a R2.6, because it is not an effective deterrent or control to unauthorized access into an ESP.
6. The retirement of this requirement does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk

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<sup>32</sup> NERC FFT Informational Filing, Docket No. RC12-13-000 (June 29, 2012); NERC FFT Informational Filing, Docket No. RC12-7-000 (January 31, 2012).

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to reliability. Furthermore, the remainder of CIP-005-3a, -4a provides for actual controls of electronic access at all electronic access points which addresses the reliability risk associated with unauthorized access into an ESP.

7. Its retirement also promotes a results-based approach because CIP-005-3a, -4a R2.6 is an ineffective administrative task, and, therefore, does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire CIP-005-3a, -4a R2.6.

## CIP-007-3, -4 R7.3 – Cyber Security – Systems Security Management

**R7.3.** The Responsible Entity shall maintain records that such assets were disposed of or redeployed in accordance with documented procedures.

### **Background/Commission Directives**

CIP-007-1 was filed for Commission approval on August 28, 2006 in Docket No. RM06-16-000 and was approved on January 18, 2008 in Order No. 706.<sup>33</sup> CIP-007-2 was filed for Commission approval on May 22, 2009 in Docket Nos. RM06-22-000 and RD09-7-000 and was approved on September 30, 2009.<sup>34</sup> CIP-007-2a was filed for Commission approval on November 17, 2009 in Docket No. RD10-3-000 and was approved on March 18, 2010.<sup>35</sup> CIP-007-3 was filed for Commission approval on December 29, 2009 in Docket No. RD09-7-002 and was approved on March 31, 2010.<sup>36</sup> CIP-007-4 was filed for Commission approval on February 10, 2011 in Docket No. RM11-11-000 and was approved on April 19, 2012.<sup>37</sup>

In Order No. 706 at paragraph 631 the Commission stated that:

Requirement R7 of CIP-007-1 requires the responsible entity to establish formal methods, processes and procedures for disposal or redeployment of cyber assets. In the CIP NOPR, the Commission addressed the concern that solely to “erase the data,” as stated several times in Requirement R7, may not be adequate because technology exists that allows retrieval of “erased” data from storage devices, and that effective protection requires discarded or redeployed assets to undergo high quality degaussing. We noted that erasure is as much a method as it is a goal, and that the

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<sup>33</sup> *Mandatory Reliability Standards for Critical Infrastructure Protection*, 122 FERC ¶ 61,040 (2008) (“Order No. 706”).

<sup>34</sup> *Order Approving Revised Reliability Standard for Critical Infrastructure Protection and Requiring Compliance Filing*, 128 FERC ¶ 61,291 (2009), *order denying reh’g and granting clarification*, 129 FERC ¶ 61,236 (2009) (approving Version 2 of the CIP Reliability Standards)).

<sup>35</sup> *Order Approving Reliability Standard Interpretation*, 130 FERC ¶ 61,184 (2010).

<sup>36</sup> *Order on Compliance* 130 FERC ¶ 61,271 (2010).

<sup>37</sup> *Version 4 Critical Infrastructure Protection Reliability Standards*, 139 FERC ¶ 61,058 (2012).

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requirement ultimately needs to assure that there is no opportunity for unauthorized retrieval of data from a cyber asset prior to discarding it or redeploying it. Degaussing is not the sole means for achieving this goal. The Commission therefore proposed to direct the ERO to modify Requirement R7 to clarify this point. (Footnote omitted)

This Commission directive is unaffected by the retirement of CIP-007-3,-4 R7.3 as explained below.

## Technical Justification

Outside the context of a Reliability Standard, under Section 400 of the NERC Rules of Procedure, NERC and the Regional Entities have the authority to require an entity to submit data and information for purposes of monitoring compliance.<sup>38</sup> CIP-007-3, -4 R7.3 requires the maintaining of records for the purpose of demonstrating compliance with disposing of or redeploying of Cyber Assets in accordance with documented procedures. NERC and the Regions Entities, however, under Section 400 already have the ability to require the production of records to demonstrate compliance, thus it is unnecessary to also state the same in CIP-007-3, -4 R7.3. The maintaining of records is an administrative task, not a task directly related to the protection of the BES from a cyber attack. The maintaining of records is not a task that by itself, or in conjunction with other requirements, supports reliability. Also, the maintaining of the records becomes unnecessarily burdensome in that it requires all records be maintained, which may or may not be necessary to demonstrate compliance via the production of information under Section 400. (Criteria B1 and B2). As mentioned, CIP-007-3, -4 R7.3 does not promote reliability because it does not protect the BES from a cyber attack, instead it is a record retention activity. Therefore, CIP-007-3, -4 R7.3 requires an activity or task that in and of itself, does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A).

In contrast, the remaining substantive requirements in R7 read as follows:

R7. Disposal or Redeployment — The Responsible Entity shall establish and implement formal methods, processes, and procedures for disposal or redeployment of Cyber Assets within the Electronic Security Perimeter(s) as identified and documented in Standard CIP-005-3.

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<sup>38</sup> Section 401 of NERC's Rules of Procedure provide for collection of data and information necessary to monitor compliance outside the context of Reliability Standards:

**Data Access** — All Bulk Power System owners, operators, and users shall provide to NERC and the applicable Regional Entity such information as is necessary to monitor compliance with the Reliability Standards. NERC and the applicable Regional Entity will define the data retention and reporting requirements in the Reliability Standards *and compliance reporting procedures*. (emphasis added).

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R7.1. Prior to the disposal of such assets, the Responsible Entity shall destroy or erase the data storage media to prevent unauthorized retrieval of sensitive cyber security or reliability data.

R7.2. Prior to redeployment of such assets, the Responsible Entity shall, at a minimum, erase the data storage media to prevent unauthorized retrieval of sensitive cyber security or reliability data.

An entity's following of these requirements may help to protect BES reliability, but the retention of evidence associated with these requirements does not. Hypothetically, an entity could perform R7, R7.1 and R7.2 flawlessly and protect the BES, but not have any record of it. While this situation may impact a demonstration of compliance, the lack of records does not necessarily directly impact the reliability of the BES or protect it from a cyber attack.

Also, there are some inherent inefficiencies resulting from a small number of Reliability Standard requirements explicitly mandating the collection of data, evidence and records, while most data and information is collected for ERO compliance monitoring purposes without specific data collection language in the Reliability Standards. In this regard, for the ERO, Regional Entities and the entities, Reliability Standards are arguably more difficult to understand because of this inconsistent approach (typically only implicitly requiring documentation as a part of an obligation to prove compliance, but occasionally explicitly requiring it with no discernible pattern or rationale).

## **Criterion A**

CIP-007-3, -4 R7.3 does not promote reliability because it does not protect the BES from a cyber attack, instead it is a record retention activity. Therefore, CIP-007-3, -4 R7.3 requires an activity or task that in and of itself, does little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

- Criterion B1 (Administrative)
- Criterion B2 (Data Collection/Data Retention)

## **Criteria C**

1. CIP-007-3, -4 R7.3 has not been part of a FFT filing.
2. CIP-007-3, -4 R7.3 is part of an on-going Standards Development Project 2008-06 (Cyber Security). As detailed in the discussion of CIP-003-3, -4 R1.2, the P81 SDT has coordinated its efforts with the chair of Project 2008-06 and there is no conflict between retirement of CIP-007-3, -4 R7.3 and the direction of Project 2008-06.

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3. The VRF for CIP-007-3, -4 R7.3 is Lower. As explained above, CIP-007-3, -4 R7.3 is not an important part of a scheme of CIP requirements, and, therefore, it is appropriate to propose it for retirement.
4. CIP-007-3, -4 R7.3 is on the first tier of the AML; however, given that it is simply requiring the retention of records the fact that it is on the first tier is not dispositive of whether it should be retired.
5. Given the administrative, data collection nature of this requirement, retirement does not pose any negative impact to NERC's published and posted reliability principle No. 8: "Bulk power systems shall be protected from malicious physical or cyber attacks."
6. The retirement does not negatively impact defense in depth because data retention in-and-of-itself is not an activity that other requirements depend on to help cover a reliability gap or risk to reliability.
7. Its retirement promotes a results-based approach because the data collection/retention does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire CIP-007-3, -4 R7.3.

## *EOP-005-2 R3.1– System Restoration from Blackstart Resources*

- R3.1.** If there are no changes to the previously submitted restoration plan, the Transmission Operator shall confirm annually on a predetermined schedule to its Reliability Coordinator that it has reviewed its restoration plan and no changes were necessary.

### **Background/Commission Directives**

EOP-005-1 was submitted for Commission approval on August 28, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>39</sup> EOP-005-2 was submitted for Commission approval on December 31, 2009 in Docket No. RM10-16-000 and was approved on March 17, 2011 in Order No. 749.<sup>40</sup> Although the Commission did not address EOP-005-2 R3 directly in Order No. 749, it stated at paragraph 17 the following:

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<sup>39</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242 (2007).

<sup>40</sup> *System Restoration Reliability Standards*, 134 FERC ¶ 61,215, (March 17, 2011) ("Order No. 749"), *order on clarification*, 136 FERC ¶ 61,030 ("Order No. 749-A") (2011).

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EOP-005-2 and EOP-006-2 clarify the responsibilities of the reliability coordinator and transmission operator in the restoration process and restoration planning and address the Commission's directives in Order No. 693 related to the EOP Standards. By enhancing the rigor of the restoration planning process, the Reliability Standards represent an improvement from the current Standards and will improve the reliability of the Bulk-Power System. The Commission is not directing any modifications to the three new Reliability Standards. Nevertheless, as discussed below, commenters raised several issues for consideration, at the time these standards are next revisited, which we believe could improve these new Reliability Standards

There are no outstanding Commission directives that are affected by the proposed retirement of EOP-005-2 R3.1.

## **Technical Justification**

The reliability purpose of EOP-005-2 is to ensure that plans, Facilities, and personnel are prepared to enable System restoration from Blackstart Resources to assure that reliability is maintained during restoration and priority is placed on restoring the Interconnection. This reliability purpose is unaffected by the proposed retirement of R3.1.

A review of EOP-005-2 R3.1 indicates that this requirement is redundant with EOP-005-2 R3 and a duplicative administrative update that does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A, B1, B5 and B7). The primary reason EOP-005-2 R3.1 is unnecessary is that EOP-005-2 R3 already requires the Transmission Operator to submit its restoration plan to its Reliability Coordinator whether or not the plan includes changes. EOP-005-2 R3 reads:

Each Transmission Operator shall review its restoration plan and submit it to its Reliability Coordinator annually on a mutually agreed predetermined schedule.

Consequently, since R3 requires the Transmission Operator to submit its restoration plan to the Reliability Coordinator whether or not there has been a change, R3.1 only adds a separate, duplicative administrative burden for the entity to also confirm that there were no changes based upon another pre-determined schedule. While R3.1 may have attempted to capture the likelihood that unless there have been significant changes to the entity's BES, there would be no change to the restoration plan, this is an insufficient reason to impose a needlessly burdensome, duplicative administrative requirement relative to the language in R3. EOP-005-2 R3.1 is also clearly needlessly burdensome if one considers that the time and resources of Transmission Operators is better spent reliably operating the BES, rather than submitting paperwork to a Reliability Coordinator on possibly two different pre-determined schedules – one for changes and one for no



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changes. For these reasons, there is no reliability gap resulting from the retirement of EOP-005-2 R3.1 because Transmission Operators already have an obligation to review and provide its restoration plan annually on a mutually agreed predetermined schedule to its Reliability Coordinator. It could also be argued that a reason for both R3 and R3.1 is for the Reliability Coordinator to organize the Transmission Operator submittals into changes versus no changes. However, with the requirement to annually review restoration plans comes the need to demonstrate and track annual reviews via the revision history index, for example, which quickly shows the Reliability Coordinator when changes have and have not occurred.

The retirement of EOP-005-2 R3.1 would also increase the efficiencies of the ERO compliance program because the ERO would be able to focus its time and resources on R3 which already captures R3.1 and not be concerned with tracking the submission of restoration plans on multiple pre-determined schedules, some with changes and some without changes. Instead, the focus of the ERO compliance program would be on whether the Transmission Operators annually submitted its restoration plan to its Reliability Coordinator on one pre-determined schedule. Thus, the retirement of EOP-005-2 R3.1 appears to benefit the ERO compliance program.

## **Criterion A**

EOP-005-2 R3.1 is redundant and a duplicative administrative update that does little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

- Criterion B1 (Administrative)
- Criterion B5 (Periodic Updates)
- Criterion B7 (Redundant)

## **Criteria C**

1. EOP-005-2 R3.1 has not been part of a FFT filing.
2. EOP-005-2 R3.1 is not part of an on-going Standards Development Project.
3. EOP-005-2 R3.1 does not yet have a FERC-approved VRF.
4. EOP-005-2 R3.1 is on the second tier of the AML; however, the duplicative nature of R3 and R3.1 discounts any indication that R3.1 being in the second tier is a reason not to proceed with its retirement.
5. Since EOP-005-2 R3 already requires the Transmission Operator to submit its restoration plan to its Reliability Coordinator whether or not the plan includes changes, retirement of EOP-005-2 R3.1 does not pose any negative impact to the following of NERC's published and posted reliability principles that appear to apply:

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- 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 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.
6. Retirement of EOP-005-2 R3.1 does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of EOP-005-2 R3.1 promotes a results-based approach because the requirement is administrative and unnecessary, and, therefore, does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire EOP-005-2 R3.1.

## *FAC-002-1 R2 – Coordination of Plans for New Facilities*

- R2.** The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems) for three years and shall provide the documentation to the Regional Reliability Organization(s) and NERC on request (within 30 calendar days).

### **Background/Commission Directives**

FAC-002-0 was submitted to the Commission for approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>41</sup> FAC-002-1 was submitted for Commission approval on September 9, 2010 in Docket No. RD10-15-000 and was approved on January 10, 2011.<sup>42</sup> When approving FAC-002-0 in Order No.

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<sup>41</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>42</sup> NERC Petition for Approval of Proposed Modifications to Reliability Standards BAL-002-1; EOP-002-3; FAC-002-1; MOD-021-2; PRC-004-2; and VAR-001-2 RD10-15-000 (January 10, 2011).

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693 at paragraphs 692 and 693, and FAC-002-1 in a subsequent order,<sup>43</sup> the Commission did not directly address R2.

There are no outstanding Commission directives that are affected by the proposed retirement of FAC-002-1 R2.

## Technical Justification

Outside the context of a Reliability Standard, under Section 400 of the NERC Rules of Procedure, NERC and the Regional Entities have the authority to require an entity to submit data and information for purposes of monitoring compliance. Thus, without the existence of FAC-002-1 R2, a Regional Entity or NERC has the ability to request and receive “documentation (of its evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems).” This generally would occur during a spot check or compliance audit where entities have the obligation to provide documentation sufficient to demonstrate compliance. In this regard, entities already have the obligation to produce the same information required in R2 to demonstrate compliance to R1 and its sub-requirements, thus making R2 unnecessary. To have a Reliability Standard requirement that is setting forth a data retention requirement and a requirement for the entity to deliver, upon request, that data to NERC or a Regional Entity is unnecessary and also repetitive with the NERC Rules of Procedure. Accordingly, retiring FAC-002-1 R2 presents no gap to reliability or to the information NERC and the Regional Entity need to monitor compliance. Thus, FAC-002-1 R2 is not necessary to support reliability. Consequently, a review of R2 indicates that it is an administrative and data collection requirement that does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A, B1 and B2). The compilation of three years of data is a burdensome task, particularly when one considers the resources and time spent on stockpiling this information is better spent coordinating the studies, executing an interconnection agreement and ensuring that interconnections are safely and reliably energized, maintained and operated. Also, there are some inherent inefficiencies that result from a small number of requirements, such as CIP-007-3, -4 R7.3 and FAC-002-1 R2 being data, evidence and record retention requirements, while there are other and more appropriate established methods to collect and review the data than a Reliability Standard via Rules of Procedure Section 401. In this regard, for the ERO, Regional Entities and the entities, arguably Reliability Standards are more difficult to understand because of this inconsistent approach (typically only implicitly requiring documentation as a part of an obligation to prove compliance, but occasionally explicitly requiring it with no discernible pattern or rationale).

## Criterion A

A review of FAC-002-1 R2 indicates that it is an administrative and data collection requirement that does little, if anything, to benefit or protect reliable operation of the BES.

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<sup>43</sup> *North American Electric Reliability Corporation*, 134 FERC ¶ 61,015 (2011).

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## Criteria B

- Criterion B1 (Administrative)
- Criterion B2 (Data Collection/Data Retention)

## Criteria C

1. FAC-002-1 R2 has not been part of a FFT filing.
2. FAC-002-1 R2 is subject to a future Project 2010-02 Connecting New Facilities to the Grid (a review of FAC-001 and FAC-002) that is scheduled to begin in the second quarter of 2015. It seems appropriate to retire FAC-002-1 R2 at this time as it may also make the review of FAC-001 and FAC-002 more effective and efficient.
3. FAC-002-1 R2 has a Lower VRF.
4. FAC-002-1 R2 is in the third tier of the AML.
5. The retirement of FAC-002-1 R2 does not pose any negative impact to NERC's published and posted reliability principles, since there are no directly applicable reliability principles.
6. The retirement does not negatively impact defense in depth because the compilation of studies for three years has no operational or planning relationship with any other requirement.
7. The retirement of FAC-002-1 R2 promotes a results-based approach since the requirement is administrative and data collection, and, therefore, does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire FAC-002-1 R2.

## *FAC-008-1 R2; FAC-008-1 R3;<sup>44</sup> - Facility Ratings Methodology*

- R2.** The Transmission Owner and Generator Owner shall each make its Facility Ratings Methodology available for inspection and technical review by those Reliability Coordinators, Transmission Operators, Transmission Planners, and Planning Authorities that have responsibility for the area in which the

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<sup>44</sup> Unlike the other requirements presented for informational purposes only, FAC-008-1 R2 and FAC-008-1 R3 have been maintained within the scope of P81 given that they are essentially identical to FAC-008-3 R4 and FAC-008-3 R5. Inclusion would also appear to be consistent with increasing ERO compliance program efficiencies. FAC-008-1 R2 and FAC-008-1 R3 became inactive on December 31, 2012, due to FAC-008-3 becoming enforceable on January 1, 2013.

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associated Facilities are located, within 15 business days of receipt of a request.

- R3.** If a Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Authority provides written comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings Methodology, the Transmission Owner or Generator Owner shall provide a written response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the Facility Ratings Methodology and, if no change will be made to that Facility Ratings Methodology, the reason why.

## **Background/Commission Directives**

FAC-008-1 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>45</sup>

There are no outstanding Commission directives that are affected by the proposed retirement of FAC-008-1 R2 and R3.

## **Technical Justification**

FAC-008-1 R2 and R3 require that a Transmission Owner and Generator Owner must make its facilities ratings methodology available for inspection and technical review by Reliability Coordinators, Transmission Operators, Transmission Planners, and Planning Authorities that have responsibility for the area in which the associated facilities are located and also require them to respond to any comments received including whether a change will be made to the facility ratings methodology. The retirement of FAC-008-1 R2 and R3 does not create a reliability gap, because Transmission Owners and Generator Owners must comply with the substantive requirements of FAC-008-1 regarding their facility rating methodologies whether or not the exchange envisioned by FAC-008-1 R2 and R3 occurs. Furthermore, neither FAC-008-1 R2 and R3 require that the Transmission Owner and Generator Owner change its methodology, rather FAC-008-1 R2 and R3 are designed as an exchange of comments that may be an avenue to advance commercial interests.

For example, if a Generator Owner's methodology provides for derating its generator step up ("GSU") transformers below the nameplate in an effort to extend the life of its GSUs, that is a commercial decision it has made, and should not be subject to review by a Reliability Coordinator, Transmission Operator, Transmission Planner, and Planning Authority, some of which may have affiliated parts of their company that could benefit from the Generator Owner changing its methodology and operating its GSUs at

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<sup>45</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). ("Order No. 693"), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

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nameplate. In contrast, the reliability objective that facility ratings produced by the methodologies of the Transmission Owner or Generator Owner shall equal the most limiting applicable equipment rating, and consider, for example, emergency and normal conditions, operating conditions, nameplate ratings, etc. is not significantly or substantively advanced by FAC-008-1 R2 (available for inspection) and R3 (comment and responsive comments). Furthermore, the reliability objective that facility ratings produced by the methodologies of the Transmission Owner or Generator Owner are provided to the reliability entities for the establishment of System Operating Limits (“SOLs”), Interconnection Reliability Operating Limits (“IROLs”), calculations for MOD requirements and compliance with the TPL Standards is accomplished without FAC-008-1 R2 (available for inspection) and R3 (comment and responsive comments).<sup>46</sup> Accordingly, the requirements in FAC-008-1 R2 and FAC-008-1 R3 to make the facility ratings methodology available for comment (and if comments are received to respond to those comments) is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues. (Criteria A, B1, B4 and B6). In this context, it would seem unnecessarily burdensome to engage in the exchange of comments, given there is no nexus between the exchange of comments and compliance with the substantive requirements of FAC-008-1. Instead of spending time and resources on FAC-008-1 R2 and R3, Generator Owners’ and Transmission Owners’ time and resources would be better spent complying with the substantive requirements of FAC-008-1. For these same reasons, the ERO compliance program would gain efficiencies by no longer having to track whether requests for technical review had occurred, comments provided and reallocate time and resources to monitoring the Transmission Owner’s or Generator Owner’s adherence to substantive requirements of FAC-008-1.

## **Criterion A**

The requirements in FAC-008-1 R2 and R3 to make the facility ratings methodology available for comment (and if comments are received to respond to those comments) is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues.

## **Criteria B**

- Criterion B1 (Administrative)
- Criterion B4 (Reporting)
- Criterion B6 (Commercial or Business Practice)

## **Criteria C**

1. FAC-008-1 R2 and R3 have not been part of a FFT filing.

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<sup>46</sup> See MOD-001-1a R9, MOD-028-1 R2.3; MOD-029-1a R2.1; MOD-030-02 R3.1, PRC-023-2, Attachment A 2.7; TPL-001-0.1 Footnote a; TPL-002-1b, footnotes a and b; TPL-003-0a, footnote a and TPL-004-0, footnote a. Also, via FAC-011-2 the System Operating Limits methodology of Reliability Coordinator may also use facility ratings as a key element.

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2. FAC-008-1 R2 and R3 are not subject to an on-going Standards Development Project.
3. FAC-008-1 R2 and R3 have a Lower VRF.
4. FAC-008-1 R2 and R3 are in the third tier of the AML.
5. The retirement of FAC-008-1 R2 and R3 does not pose any negative impact to the following applicable NERC's published and posted reliability principles:

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 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 the adherence to the substantive requirements of FAC-008-1 that promotes these posted reliability principles, and not receiving comments on the facility ratings methodology from outside entities and then responding to those comments.

6. Retirement of FAC-008-1 R2 and R3, does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability. These requirements may invite entities to engage in an exchange or debate over commercially sensitive information.
7. The retirement of FAC-008-1 R2 and R3 promotes a results-based approach because the requirements do not require the performance of a reliability task.

Accordingly, for the above reasons, it is appropriate to retire FAC-008-1 R2 and R3.

## *FAC-008-3 R4; FAC-008-3 R5 – Facility Ratings*

- R4.** Each Transmission Owner shall make its Facility Ratings methodology and each Generator Owner shall each make its documentation for determining its Facility Ratings and its Facility Ratings methodology available for inspection and technical review by those Reliability Coordinators, Transmission Operators, Transmission Planners and Planning Coordinators that have

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responsibility for the area in which the associated Facilities are located, within 21 calendar days of receipt of a request.

- R5.** If a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator provides documented comments on its technical review of a Transmission Owner's Facility Ratings methodology or Generator Owner's documentation for determining its Facility Ratings and its Facility Rating methodology, the Transmission Owner or Generator Owner shall provide a response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the Facility Ratings methodology and, if no change will be made to that Facility Ratings methodology, the reason why.

## Background/Commission Directives

FAC-008-1 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>47</sup> "On May 12, 2010, the NERC Board of Trustees approved the proposed FAC-008-2 Reliability Standard that addressed the first two of the FERC directives in Order No.

693. NERC's proposed FAC-008-2 Reliability Standard was not filed with FERC for approval, but instead was revisited by the standard drafting team so that the third Order No. 693 directive could be addressed in response to FERC's March 18, 2010 Order..."<sup>48</sup>

FAC-008-3 was submitted for Commission approval on June 15, 2011 in Docket No. RD11-10-000 and was approved on November 17, 2011.<sup>49</sup>

There are no outstanding Commission directives that are affected by the proposed retirement of FAC-008-3 R4 and R5.

## Technical Justification

FAC-008-3 R4 and R5 require that a Transmission Owner and Generator Owner must make its facilities ratings methodology available for inspection and technical review by Reliability Coordinators, Transmission Operators, Transmission Planners, and Planning Authorities that have responsibility for the area in which the associated facilities are located and also require them to respond to any comments received including whether a change will be made to the facility ratings methodology. The retirement of FAC-008-3 R4 and R5 does not create a reliability gap, because Transmission Owners and Generator Owners must comply with the substantive requirements of FAC-008-3 regarding their facility rating methodologies whether or not the exchange envisioned by FAC-008-3 R4 and R5 occurs. Further, neither FAC-008-3 R4 nor R5 require that the Transmission Owner and Generator Owner change its methodology, rather FAC-008-3 R4 and R5 are

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<sup>47</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). ("Order No. 693"), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>48</sup> Petition of the North American Electric Reliability Corporation for Approval of Proposed Reliability Standard FAC-008-3 — Facility Ratings, Docket No. RD11-10-000, (June 15, 2011).

<sup>49</sup> *Order Approving Reliability Standard*, 137 FERC ¶ 61,123 (2011).



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designed as an exchange of comments that may be an avenue to advance commercial interests.

For example, if a Generator Owner's methodology provides for derating its GSU transformers below the nameplate in an effort to extend the life of its GSUs, that is a commercial decision it has made, and should not be subject to review by a Reliability Coordinator, Transmission Operator, Transmission Planner, and Planning Authority, some of which may have affiliated parts of their company that could benefit from the Generator Owner changing its methodology and operating its GSUs at nameplate. In contrast, the reliability objective that facility ratings produced by the methodologies of the Transmission Owner or Generator Owner shall equal the most limiting applicable equipment rating, and consider, for example, emergency and normal conditions, historical performance, nameplate ratings, etc. is not significantly or substantively advanced by FAC-008-3 R4 (available for inspection) and R5 (comment and responsive comments). Furthermore, the reliability objective that facility ratings produced by the methodologies of the Transmission Owner or Generator Owner are provided to the reliability entities for the establishment of SOLs, IROLs, calculations for MOD requirements and compliance with the TPL Standards is accomplished without FAC-008-3 R4 (available for inspection) and R5 (comment and responsive comments).<sup>50</sup> Accordingly, the requirements in FAC-008-3 R4 and R5 to make the facility ratings methodology available for comment (and if comments are received to respond to those comments) is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues. (Criteria A, B1, B4 and B6). In this context, it would seem unnecessarily burdensome to engage in the exchange of comments, given there is no nexus between the exchange and compliance with the substantive requirements of FAC-008-3. Instead of spending time and resources on FAC-008-3 R4 and R5, Generator Owners' and Transmission Owners' time and resources would be better spent complying with the substantive requirements of FAC-008-3. For these same reasons, the ERO compliance program would gain efficiencies by no longer having to track whether requests for technical review had occurred, comments provided and reallocate time and resources to monitoring the Transmission Owner's or Generator Owner's adherence to substantive requirements of FAC-008-3.

## **Criterion A**

The requirements in FAC-008-3 R4 and R5 to make the facility ratings methodology available for comment (and if comments are received to respond to those comments) is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues.

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<sup>50</sup> See MOD-001-1a R9, MOD-028-1 R2.3; MOD-029-1a R2.1; MOD-030-2 R3.1, PRC-023-2, Attachment A 2.7; TPL-001-0.1 Footnote a; TPL-002-1b, footnotes a and b; TPL-003-0a, footnote a and TPL-004-0, footnote a. Also, via FAC-011-2 the System Operating Limits methodology of Reliability Coordinator may also use facility ratings as a key element. Also, FAC-008-3 R7 and R8 require the transmission of facility ratings to reliability entities.

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## Criteria B

- Criterion B1 (Administrative)
- Criterion B4 (Reporting)
- Criterion B6 (Commercial or Business Practice)

## Criteria C

1. FAC-008-3 R4 and R5 have not been part of a FFT filing.
2. FAC-008-3 R4 and R5 are not subject to an on-going Standards Development Project.
3. FAC-008-3 R4 and R5 have a Lower VRF.
4. FAC-008-3 R4 and R5 are in the third tier of the AML.
5. The retirement of FAC-008-3 R4 and R5 does not pose any negative impact to the following applicable NERC's published and posted reliability principles:

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 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 the adherence to the substantive requirements of FAC-008-3 that promotes these posted reliability principles, and not receiving comments on the facility ratings methodology from outside entities and then responding to those comments.

6. Retirement of FAC-008-3 R4 and R5, does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability. These may invite entities to engage in an exchange or debate over commercially sensitive information.
7. The retirement of FAC-008-3 R4 and R5 promotes a results-based approach because the requirements do not require the performance of a reliability task.

Accordingly, for the above reasons, it is appropriate to retire FAC-008-3 R4 and R5.

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## \*\*FAC-010-2.1 R5 – System Operating Limits Methodology for the Planning Horizon

- R5.** If a recipient of the SOL Methodology provides documented technical comments on the methodology, the Planning Authority shall provide a documented response to that recipient within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the SOL Methodology and, if no change will be made to that SOL Methodology, the reason why.

### **Background/Commission Directives**

FAC-010-1 was filed for Commission approval on November 15, 2006 in Docket Nos. RM06-16-000 and RM07-3-000 and was approved on December 27, 2007 in Order No. 705.<sup>51</sup> FAC-010-2 was filed for Commission approval on June 30, 2008 in Docket No. RM08-11-000 and was approved on March 20, 2009 in Order No. 722.<sup>52</sup> FAC-010-2.1 was filed for Commission approval on November 20, 2009 in Docket No. RD10-9-000 and was approved on April 19, 2010.<sup>53</sup> In Order No. 722,<sup>54</sup> the Commission approved FAC-010-2.1 R5 without specifically addressing R5.

There are no outstanding Commission directives with respect to this R5.

### **Technical Justification**

The reliability purpose of FAC-010-2.1, to ensure that System Operating Limits used in the reliable planning of the BES are determined based on an established methodology, is unaffected by the proposed retirement of R5. FAC-010-2.1 R5 requires that when a Planning Authority receives comments on its SOL methodology, it must respond and indicate whether it has changed its methodology. The retirement of FAC-010-2.1 R5 does not create a reliability gap, because the Planning Authority must comply with the substantive requirements of FAC-010-2.1 whether or not the exchange envisioned by FAC-010-2.1 R5 occurs. FAC-010-2.1 R5 may support an avenue to advance commercial interests.

For example, if a Transmission Operator or Transmission Planner is also a Transmission Owner it may have a commercial interest in lowering SOLs on its transmission lines in an effort to extend the life of its equipment and, therefore, challenge the Planning Authority's methodology to reduce its SOLs. The Transmission Owner's interests are better considered in the context of its development of a facility ratings methodology

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<sup>51</sup> *Facilities Design, Connections and Maintenance Reliability Standards*, 121 FERC ¶ 61,296 (December 27, 2007) (Order No. 705).

<sup>52</sup> *Version Two Facilities Design, Connections and Maintenance Reliability Standards*, 126 FERC ¶ 61,255 (March 20, 2009) (Order No. 722).

<sup>53</sup> Letter Order, Electric Reliability Organization Errata Petition Updating Accepted Transmission Operations Reliability Standards, Docket No. RD10-9-000 (April 19, 2010).

<sup>54</sup> *Version Two Facilities Design, Connections and Maintenance Reliability Standards* 125 FERC ¶ 61,040 (2009).

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under FAC-008-1, -3 than the Planning Authority's methodology. FAC-010-2.1 R5, however, is an invitation to advance commercial interests not through established means, but by challenging the Planning Authority's SOL methodology. Accordingly, FAC-010-2.1 R5 sets forth an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues. (Criteria A, B1, B4 and B6). In this context, it would seem unnecessarily burdensome to engage in the exchange of comments, given there is no nexus between the exchange and compliance with the substantive requirements of FAC-010-2.1. Instead of spending time and resources on FAC-010-2.1, a Planning Authority's time and resources would be better spent complying with the substantive requirements of FAC-010-2.1. For these same reasons, the ERO compliance program would gain efficiencies by no longer having to track whether requests for technical review had occurred, comments provided and reallocate time and resources to monitoring the Planning Authority's adherence to substantive requirements of FAC-010-2.1.

## **Criterion A**

The requirement in FAC-010-2.1 R5 to respond to comments on the SOL methodology is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

- Criterion B1 (Administrative)
- Criterion B4 (Reporting)
- Criterion B6 (Commercial or Business Practice)

## **Criteria C**

1. FAC-010-2.1 R5 has not been part of a FFT filing.
2. FAC-010-2.1 R5 is subject to future Standards Development Project 2012-11 FAC Review, which is a placeholder for the five year review of FAC-010 and FAC-011. Thus, it is appropriate to process the retirement of this requirement as part of the P81 Project.
3. FAC-010-2.1 R5 has a Lower VRF.
4. FAC-010-2.1 R5 is not on the AML.
5. The retirement of this requirement does not pose any negative impact to NERC's published and posted reliability principles No. 1 or No. 3.

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.

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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 the adherence to the substantive requirements of FAC-010-2.1 that promotes these posted reliability principles, and not receiving comments on the facility ratings methodology from outside entities and then responding to those comments.

6. The retirement of this requirement does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of FAC-010-2.1 R5 also promotes a results-based approach because the requirements have no direct nexus to the performance of a reliability task.

Accordingly, for the above reasons, it is appropriate to retire FAC-010-2.1 R5.

## \*\*FAC-011-2 R5– System Operating Limits Methodology for the Operations Horizon

**R5.** If a recipient of the SOL Methodology provides documented technical comments on the methodology, the Reliability Coordinator shall provide a documented response to that recipient within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the SOL Methodology and, if no change will be made to that SOL Methodology, the reason why.

### **Background/Commission Directives**

FAC-011-1 was filed for Commission approval on November 15, 2006 in Docket Nos. RM06-16-000 and RM07-3-000 and was approved on December 27, 2007 in Order No. 705.<sup>55</sup> FAC-011-2 was filed for Commission approval on June 30, 2008 in Docket No. RM08-11-000 and was approved on March 20, 2009 in Order No. 722.<sup>56</sup> In Order No. 722, the Commission approved FAC-011-2 R5 without specifically addressing R5.

There are no outstanding Commission directives with respect to this R5.

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<sup>55</sup> *Facilities Design, Connections and Maintenance Reliability Standards*, 121 FERC ¶ 61,296 (December 27, 2007) (Order No. 705).

<sup>56</sup> *Version Two Facilities Design, Connections and Maintenance Reliability Standards*, 126 FERC ¶ 61,255 (March 20, 2009) (Order No. 722).

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## Technical Justification

FAC-011-2 R5 requires that when a Reliability Coordinator receives comments on its SOL methodology that it must respond and indicate whether it has changed its methodology. The retirement of FAC-011-2 R5 does not create a reliability gap, because the Reliability Coordinator must comply with the substantive requirements of FAC-011-2 R5 whether or not the exchange envisioned by FAC-011-2 R5 occurs. FAC-011-2 R5 may support an avenue to advance commercial interests.

For example, similar to FAC-010-2.1 R5, if a Transmission Operator or Transmission Planner also is a Transmission Owner it may have a commercial interest in lowering SOLs on its transmission lines in an effort to extend the life of its equipment and, therefore, challenge the Reliability Coordinator's methodology to reduce its SOLs. The Transmission Owner's interests are better considered in the context of the development of its facility ratings methodology under FAC-008-1, -3 than the Reliability Coordinator's methodology. FAC-011-2 R5, however, is an invitation to advance commercial interests not through established means, but by challenging the Reliability Coordinator's SOL methodology. Accordingly, FAC-011-2 R5 sets forth an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues. (Criteria A, B1, B4 and B6). In this context, it would seem unnecessarily burdensome to engage in the exchange of comments, given there is no nexus between the exchange and compliance with the substantive requirements of FAC-011-2. Instead of spending time and resources on FAC-011-2 R5 a Reliability Coordinator's time and resources would be better spent complying with the substantive requirements of FAC-011-2 R5. For these same reasons, the ERO compliance program would gain efficiencies by no longer having to track whether requests for technical review had occurred, comments provided and reallocate time and resources to monitoring the Reliability Coordinator's adherence to substantive requirements of FAC-011-2 R5.

## Criterion A

The requirement in FAC-011-2 R5 to respond to comments on the SOL methodology is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues.

## Criteria B

- Criterion B1 (Administrative)
- Criterion B4 (Reporting)
- Criterion B6 (Commercial or Business Practice)

## Criteria C

1. FAC-011-2 R5 has not been part of a FFT filing.

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2. FAC-011-2 R5 is subject to future Standards Development Project 2012-11 FAC Review, which is a placeholder for the five year review of FAC-010 and FAC-011 which is not currently scheduled and thus it is appropriate to process the retirement of this requirement as part of the P81 Project.
3. FAC-011-2 R5 has a Lower VRF.
4. FAC-011-2 R5 is not on the AML.
5. The retirement of this requirement does not pose any negative impact to NERC's published and posted reliability principles No. 1 or No. 3.

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 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 the adherence to the substantive requirements of FAC-011-2 that promotes these posted reliability principles, and not receiving comments on the facility ratings methodology from outside entities and then responding to those comments.

6. The retirement of this requirement does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of FAC-011-2 R5 also promotes a results-based approach because the requirements have no direct nexus to the performance of a reliability task.

Accordingly, for the above reasons, it is appropriate to retire FAC-011-2 R5.

## *FAC-013-2 R3 – Assessment of Transfer Capability for the Near-term Transmission Planning Horizon*

- R3.** If a recipient of the Transfer Capability methodology provides documented concerns with the methodology, the Planning Coordinator shall provide a documented response to that recipient within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made

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to the Transfer Capability methodology and, if no change will be made to that Transfer Capability methodology, the reason why.

## Background/Commission Directives

FAC-013-1 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>57</sup> FAC-013-2 was submitted for Commission approval on January 28, 2011 in Docket No. RD11-3-000 and was approved on November 17, 2011.<sup>58</sup>

In Order No. 729, the Commission denied NERC's request to withdraw FAC-012-1 and retire FAC-013-1, and directed as follows at paragraph 291:

291. The Commission hereby adopts its NOPR proposal to deny NERC's request to withdraw FAC-012-1 and retire FAC-013-1. Instead, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, the Commission directs the ERO to develop modifications to FAC-012-1 and FAC-013-1 to comply with the relevant directives of Order No. 693 and, as otherwise necessary, to make the requirements of those Reliability Standards consistent with those of the MOD Reliability Standards approved herein as well as this Final Rule. These modifications should also remove redundant provisions for the calculation of transfer capability addressed elsewhere in the MOD Reliability Standards. In making these revisions, the ERO should consider the development of a methodology for calculation of inter-regional and intra-regional transfer capabilities. The Commission accepts the ERO's request for additional time to prepare the modifications and so directs the ERO to submit the modifications to FAC-012-1 and FAC-013-1 no later than 60 days before the MOD Reliability Standards become effective.

Although the Commission did not directly address the merits of FAC-013-2 R3 when approving FAC-013-2,<sup>59</sup> similar to FAC-008-3, the developer of the Transfer Capability methodology and data must follow specific technical requirements and provide the data to reliability entities for use in their models. There are no outstanding Commission directives with respect to this R3.

## Technical Justification

A review of FAC-013-2 R3 indicates that it is a needlessly burdensome administrative task that does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A, B1 and B4). Specifically, FAC-013-2 R1 and its sub-requirements set forth the information that each Planning Authority must include when developing its Transfer Capability methodology. FAC-013-2 R3 sets forth a requirement that if an entity

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<sup>57</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>58</sup> *Order Approving Reliability Standard*, 137 FERC ¶ 61,131 (2011).

<sup>59</sup> *Id.* (approval of FAC-013-2).



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comments on this methodology, the Planning Authority must respond and indicate whether or not it will make a change to its Transfer Capability methodology. Thus, while R1 sets forth substantive requirements, R3 sets forth more of an administrative task of the Planning Authority responding to comments on its methodology.

The following NERC glossary definition of Transfer Capability states:

The measure of the ability of interconnected electric systems to move or transfer power *in a reliable manner* from one area to another over all transmission lines (or paths) between those areas under specified system conditions. The units of transfer capability are in terms of electric power, generally expressed in megawatts (MW). The transfer capability from “Area A” to “Area B” is *not* generally equal to the transfer capability from “Area B” to “Area A.”

In the context of a Planning Authority engaging in an exchange with an entity over the Transfer Capability there is a possibility of a scenario that a group of generators<sup>60</sup> try to get the Planning Authority to revise its Transfer Capability methodology to advance commercial interests via changes to the methodology that would increase or decrease transfer capability from Area A to Area B. (Criterion B6). Such issues should be raised in the context of receipt of transmission services, not the Reliability Standards. Moreover, even without the possible commercial motivation of certain entities to get the Planning Authority to revise its Transfer Capability methodology, implementing an exchange between entities and the Planning Authority seems much better suited via regional planning committees, than mandatory Reliability Standards.

In this context, it would seem unnecessarily burdensome to engage in the exchange of comments, given there is no nexus between the exchange and compliance with the substantive requirements of FAC-013-2. Instead of spending time and resources on FAC-013-2 R3, time and resources would be better spent complying with the substantive requirements of FAC-013-2. For these same reasons, the ERO compliance program would gain efficiencies by no longer having to track whether requests for technical review had occurred, comments provided and reallocate time and resources to monitoring the Reliability Coordinator’s adherence to substantive requirements of FAC-013-2.

## **Criterion A**

The requirement in FAC-013-2 R3 to respond to comments on the Transfer Capability methodology is an administrative task that does little, if anything, to benefit or protect the reliable operation of the BES, and has the potential to implicate commercially sensitive issues.

## **Criteria B**

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<sup>60</sup> Generators that receive the Transfer Capability methodology via an association with one of the entities in the R2 sub-requirements.

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- Criterion B1 (Administrative)
- Criterion B4 (Reporting)
- Criterion B6 (Commercial or Business Practice)

## Criteria C

1. FAC-013-2 R3 has not been part of a FFT filing.
2. FAC-013-2 R3 is not subject to an on-going Standards Development Project.
3. FAC-013-2 R3 has a Lower VRF.
4. FAC-013-2 R3 is not on the AML.
5. The retirement of FAC-013-2 R3 does not pose any negative impact to NERC's published and posted reliability principles No. 1 or No. 3.

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 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 the adherence to the substantive requirements of FAC-013-2 that promotes these posted reliability principles, and not receiving comments on the facility ratings methodology from outside entities and then responding to those comments.

6. The retirement of FAC-013-2 R3 does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of FAC-013-2 R3 promotes a results-based approach because the requirements do not require the performance of a reliability task.

Accordingly, for the above reasons, it is appropriate to retire FAC-013-2 R3.

## *INT-007-1 R1.2 – Interchange Confirmation*

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**R1.2.** All reliability entities involved in the Arranged Interchange are currently in the NERC registry.

## **Background/Commission Directives**

INT-007-1 was submitted for Commission approval on August 28, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>61</sup> The Commission did not directly address INT-007-1 R1.2 when it approved the Reliability Standard in Order No. 693 at paragraph 867.

There are no outstanding Commission directives with respect to R1.2.

## **Technical Justification**

The reliability purpose of INT-007-1 is to ensure that each Arranged Interchange is checked for reliability before it is implemented. The reliability purpose of INT-007-1 is unaffected by the proposed retirement of R1.2.

INT-007-1 R1.2 is a needlessly burdensome administrative task that does not support reliability because it is now outdated. (Criterion B1). At one time the identification number came from the NERC TSIN system, by now it is handled via NAESB Electric Industry Registry.<sup>62</sup> Also, under the E-Tag protocols, no entity may engage in an Interchange transaction without first registering with the E-Tag system and receiving an identification number. Further, the entity desiring the transaction enters this identification number in the E-Tag system to pre-qualify and engage in an Arranged Interchange. Accordingly, the task set forth in INT-007-1 R1.2 is an outdated activity that is no longer necessary, and thus, does little, if anything, to benefit or protect the reliable operation of the BES. (Criterion A). The ERO compliance program would benefit and be more efficient if it was not monitoring an outdated requirement.

## **Criterion A**

The task set forth in INT-007-1 R1.2 is an outdated activity that is no longer necessary, and thus, does little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

- Criterion B1 (Administrative)

## **Criteria C**

1. INT-007-1 R1.2 has not been part of a FFT filing.
2. INT-007-1 R1.2 is part of a pending Standards Development Project – Project 2008-12 Coordinate Interchange Standards, which is estimated to start in the

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<sup>61</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>62</sup> *See, North American Energy Standards Board Webregistry Technical Guide v1.4* (Proprietary) (July 2012). The new NAESB system has updated and implemented more automation to the process.

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second quarter of 2013. Given this timeline, it is appropriate to move forward with the retirement of INT-007-1 R1.2. Such a retirement may also help to streamline Project 2008-12 once it is active and progressing.

3. INT-007-1 R1.2 has a Lower VRF.
4. INT-007-1 R1.2 is not on the AML.
5. The retirement of INT-007-1 R1.2 does not pose any negative impact to NERC's published and posted reliability principles No. 1 or No. 3.

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 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 the adherence to the substantive requirements of INT-007-1 that promotes these posted reliability principles, not R1.2.

6. The retirement of INT-007-1 R1.2 does not impact any defense in depth strategies because the task is no longer necessary.
7. The retirement of INT-007-1 R1.2 promotes a results-based approach because the requirement does not require the performance of a reliability task.

Accordingly, for the above reasons, it is appropriate to retire INT-007-1 R1.2.

## *IRO-016-1 R2 – Coordination of Real-time Activities Between Reliability Coordinators*

- R2.** The Reliability Coordinator shall document (via operator logs or other data sources) its actions taken for either the event or for the disagreement on the problem(s) or for both.

### **Background/Commission Directives**

IRO-016-1 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693. The Commission

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did not directly address R2 when approving IRO-016-1 in Order No. 693 at paragraphs 1004 and 1005. There are no outstanding Commission directives with respect to R2.

## Technical Justification

The reliability purpose of IRO-016-1 is to ensure that each Reliability Coordinator's operations are coordinated such that they will not have an adverse reliability impact on other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations. To implement the purpose, IRO-016-1 R1 and its sub-requirements state:

**R1.** The Reliability Coordinator that identifies a potential, expected, or actual problem that requires the actions of one or more other Reliability Coordinators shall contact the other Reliability Coordinator(s) to confirm that there is a problem and then discuss options and decide upon a solution to prevent or resolve the identified problem.

**R1.1.** If the involved Reliability Coordinators agree on the problem and the actions to take to prevent or mitigate the system condition, each involved Reliability Coordinator shall implement the agreed-upon solution, and notify the involved Reliability Coordinators of the action(s) taken.

**R1.2.** If the involved Reliability Coordinators cannot agree on the problem(s) each Reliability Coordinator shall re-evaluate the causes of the disagreement (bad data, status, study results, tools, etc.).

**R1.2.1.** If time permits, this re-evaluation shall be done before taking corrective actions.

**R1.2.2.** If time does not permit, then each Reliability Coordinator shall operate as though the problem(s) exist(s) until the conflicting system status is resolved.

These requirements are specific actions and decision points among Reliability Coordinators that promote the reliable operation of the BES. In contrast, a review of R2 indicates that it is a needlessly burdensome administrative and data collection requirement that does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A, B1 and B2). Therefore, the reliability purpose of IRO-016-1 is unaffected by the proposed retirement of R2.

Furthermore, outside the context of a Reliability Standard, under Section 400 of the NERC Rules of Procedure, NERC and the Regional Entities have the authority to require an entity to submit data and information for purposes of monitoring compliance. Thus, the retirement of IRO-016-1 R2 does not affect the ability for NERC and the Regional Entities to require Reliability Coordinators to produce documentation to demonstrate

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compliance with IRO-016-1 R1 and its sub-requirements. Accordingly, retiring IRO-016-1 R2 presents no gap to reliability or to the information NERC and the Regional Entities need to monitor compliance. Thus, IRO-016-1 R2 does not support reliability. Consequently, R2 is an administrative and data collection requirement that does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A, B1 and B2). Also, there are some inherent inefficiencies that result by a small number of requirements, such as IRO-016-1 R2 being a data, evidence and record retention requirement, while there are other and more appropriate established methods to collect and review the data than a Reliability Standard via Rules of Procedure Section 401. In this regard, for the ERO, Regional Entities and the entities, arguably Reliability Standards are more difficult to understand because of this inconsistent approach (typically only implicitly requiring documentation as a part of an obligation to prove compliance, but occasionally explicitly requiring it with no discernible pattern or rationale).

## **Criterion A**

A review of R2 indicates that it is a needlessly burdensome administrative and data collection requirement that does little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

- Criterion B1 (Administrative)
- Criterion B2 (Data Collection/Data Retention)

## **Criteria C**

1. IRO-016-1 R2 has not been part of a FFT filing
2. IRO-016-1 R2 is not subject to an on-going Standards Development project.
3. IRO-016-1 R2 has a Lower VRF.
4. IRO-016-1 R2 is not on the AML.
5. The retirement of IRO-016-1 R2 does not pose any negative impact to NERC's published and posted reliability principles, since none of the principles appear to apply to a data retention requirement.
6. IRO-016-1 R2 does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of IRO-016-1 R2 promotes a results-based approach because the requirement is administrative and data collection, and, therefore, does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire IRO-016-1 R2.

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## NUC-001-2 R9.1; NUC-001-2 R9.1.1; NUC-001-2 R9.1.2; NUC-001-2 R9.1.3; NUC-001-2 R9.1.4 – Nuclear Plant Interface Coordination

### **R9.1.** Administrative elements:

**R9.1.1.** Definitions of key terms used in the agreement.

**R9.1.2.** Names of the responsible entities, organizational relationships, and responsibilities related to the NPIRs.

**R9.1.3.** A requirement to review the agreement(s) at least every three years.

**R9.1.4.** A dispute resolution mechanism.

### **Background/Commission Directives**

NUC-001-1 was submitted for Commission approval on November 19, 2007 in Docket No. RM08-3-000 and was approved on October 16, 2008.<sup>63</sup> NUC-001-2 was submitted for Commission approval on August 14, 2009 in Docket No. RD09-10-000 and was approved on January 21, 2010.<sup>64</sup>

Although in Order No. 716 the merits of R9.1 and its sub-requirements were not directly addressed, the Commission did state the following in the context of the VRFs for all of R9:<sup>65</sup>

Consistent with the NOPR, the Commission directs the ERO to revise the violation risk factor assignment for Requirement R9 from lower to medium. The Commission disagrees with commenters that a lower violation risk factor is appropriate because Requirement R9 is an administrative requirement to include the specified provisions. While the Commission recognized in the NOPR that many of the requirements of the proposed Reliability Standard are administrative in nature, these same requirements provide for the development of procedures to ensure the safe and reliable operation of the grid, and responses to potential emergency conditions.

There are no outstanding Commission directives with respect to these requirements.

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<sup>63</sup> *Mandatory Reliability Standard for Nuclear Plant Interface Coordination*, 125 FERC ¶ 61,065 (2008) (“Order No. 716”), *order on reh’g*, Order No. 716-A, 126 FERC ¶ 61,122 (2009).

<sup>64</sup> *Order Approving Reliability Standard*, 130 FERC ¶ 61,051 (2010).

<sup>65</sup> NUC-001-1 was approved in Order No. 716, while NUC-001-2 was approved without discussion of R9.1 and its sub-requirements in a subsequent order. *Mandatory Reliability Standard for Nuclear Plant Interface Coordination*, 125 FERC ¶ 61,065 (2008); 130 FERC ¶ 61,051 (2010).

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## Technical Justification

The reliability purpose of NUC-001-2 is to ensure the coordination between Nuclear Plant Generator Operators and Transmission Entities for nuclear plant safe operation and shutdown. The reliability purpose of NUC-001-2 is unaffected by the proposed retirement of requirements 9.1, 9.1.1, 9.1.2, 9.1.3 and 9.1.4. Requirement 9.1 and its sub-requirements specify certain administrative elements that must be included in the agreement (required by R2) between the Nuclear Plant Generator Operator and the applicable Transmission Entities. These are a mix of technical, communication, training and administrative requirements. Of those that may be classified as administrative, R9.1 and its sub-requirements clearly stand out as unnecessarily burdensome administrative tasks that do little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A and B1). R9.1 and its sub-requirements are a check list of certain non-technical boilerplate provisions generally included in modern agreements. These provisions do not directly relate to protecting BES reliability. Further, requiring via a mandatory Reliability Standard the inclusion of boilerplate provisions is unnecessarily burdensome relative to the other significant requirements in NUC-001-2 that pertain to performance based reliability coordination and protocols between Transmission Entities and Nuclear Plant Generator Operators. Therefore, the retirement of NUC-001-2 R9.1 and all its sub-requirements creates no reliability gap and are the type of provisions that would likely be in a modern agreement anyway.

For these same reasons, the ERO compliance program efficiency will increase with the retirement of NUC-001-2 R9.1 and its sub-requirements because compliance monitoring time and resources will not be spent conducting a checklist of whether an agreement includes boilerplate provisions, and instead, the time and resources may be spent reviewing adherence with the technical, substantive coordination and protocol provisions of NUC-001-2.

## Criterion A

R9.1 and its sub-requirements are unnecessarily burdensome administrative tasks that do little, if anything, to benefit or protect the reliable operation of the BES.

## Criteria B

- Criterion B1 (Administrative)

## Criteria C

1. NUC-001-2 R9.1 and its sub-requirements have not been part of a FFT filing.
2. NUC-001-2 R9.1 and its sub-requirements are not part of an on-going Standards Development Project, but NUC-001-2 is part of Project 2012-13, which is a placeholder for a five year review. Given the as yet undetermined start date for Project 2012-13, it is appropriate to move forward with the retirement of NUC-001-2 R9.1 and its sub-requirements.



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3. Individual VRFs are not assigned to the sub-requirements of NUC-001-2 R9.
4. NUC-001-2 R9.1 and its sub-requirements are in the third tier of the AML.
5. The retirement of NUC-001-2 R9.1 and its sub-requirements do not pose any negative impact to NERC's published and posted reliability principles, since none of them seem to apply to the inclusion of boilerplate contractual provisions.
6. There is no impact on a defense in depth strategy because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of NUC-001-2 R9.1 and its sub-requirements promote a results-based approach by eliminating administrative check-list requirements.

Accordingly, for the above reasons, it is appropriate to retire NUC-001-2 R9.1 and its sub-requirements.

## *PRC-010-0 R2 – Assessment of the Design and Effectiveness of UVLS Program;*

- R2.** The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days).

### **Background/Commission Directives**

PRC-010-0 was filed for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>66</sup> Although not specifically addressing PRC-010-0 R2, in Order No. 693 at paragraph 1506 and 1507 the Commission stated that:

With regard to ISO-NE's disagreement on integration of various system protections "because such integration cannot be technologically accomplished", we note that the evidence collected in the Blackout Report indicates that "the relay protection settings for the transmission lines, generators and underfrequency load shedding in the northeast may not be entirely appropriate and are certainly not coordinated and integrated to reduce the likelihood and consequence of a cascade – nor were they intended to do so." In addition, the Blackout Report stated that one of the common causes of major outages in North America is a lack of coordination on system protection. The Commission agrees with the

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<sup>66</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). ("Order No. 693"), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

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protection experts who participated in the investigation, formulated Blackout Recommendation No. 21 and recommended that UVLS programs have an integrated approach.

Regarding FirstEnergy's question of whether universal coordination among UVLS programs that address local system problems makes sense, we believe that PRC-010-0's objective in requiring an integrated and coordinated approach is to address the possible adverse interactions of these protection systems among themselves and to determine whether they could aggravate or accelerate cascading events. We do not believe this Reliability Standard is aimed at universal coordination among UVLS programs that address local system problems. (Footnote omitted).

The retirement of PRC-010-0 R2 does not affect a Commission directive.

## **Technical Justification**

Outside the context of a Reliability Standard, under Section 400 of the NERC Rules of Procedure, NERC and the Regional Entities have the authority to require an entity to submit documentation of its current UVLS program assessment for purposes of monitoring compliance. Thus, the retirement of PRC-010-0 R2 does not affect the ability of NERC and the Regional Entities to require Reliability Coordinators to produce documentation to monitor compliance with PRC-010-0 R1 and its sub-requirements. Furthermore, PRC-010-0 R1 requires that the entity document an assessment of the effectiveness of its UVLS program:

The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program.

Accordingly, retiring PRC-010-0 R2 presents no gap to reliability or to the information NERC and the Regional Entity need to monitor compliance. A review of R2 indicates that it is a needlessly burdensome administrative and data collection/retention requirement that does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A, B1 and B2). Also, there are some inherent inefficiencies that result by a small number of requirements, such as PRC-010-0 R2 being a data production requirement, while there are other and more appropriate established methods to collect and review the data than a Reliability Standard via Rules of Procedure Section 401.

## **Criterion A**

R2 is an administrative and data collection requirement that does little, if anything, to benefit or protect the reliable operation of the BES.

## **Criteria B**

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- Criterion B1(Administrative)
- Criterion B2 (Data Collection/Data Retention)

## Criteria C

1. PRC-010-0 R2 has not been part of a FFT filing.
2. PRC-010-0 R2 is subject to Standards Development Project 2008-02 Undervoltage Load Shedding, which is not currently active and is only estimated to be completed until the second quarter of 2014. Since the purpose of Project 2008-02 does not necessarily include a review of R2 and its 2014 completion date is well into the future, it is appropriate to include PRC-010-0 R2 in the P81 Project.
3. This requirement has a Lower VRF.
4. This requirement is not part of the AML.
5. The retirement of PRC-010-0 R2 does not pose any negative impact to NERC's published and posted reliability principles, particularly since submission of a program assessment or documentation of its analysis of UVLS program performance to a Regional Entity does not seem to implicate any of the principles.
6. For similar reasons, there is no negative impact on a defense in depth strategy because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of PRC-010-0 R2 promotes a results-based approach because it is a data collection requirement, and, therefore, does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire PRC-010-0 R2.

## *PRC-022-1 R2 – Under-Voltage Load Shedding Program Performance*

- R2.** Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program shall provide documentation of its analysis of UVLS program performance to its Regional Reliability Organization within 90 calendar days of a request.

## Background/Commission Directives

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PRC-022-1 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>67</sup> In Order No. 693 at paragraph 1565 the Commission approved PRC-022-1 without a discussion of R2. There are no outstanding Commission directives with respect to R2.

## Technical Justification

Outside the context of a Reliability Standard, under Section 400 of the NERC Rules of Procedure, NERC and the Regional Entities have the authority to require an entity to submit documentation of its analysis of UVLS program performance for purposes of monitoring compliance. Thus, the retirement of PRC-022-1 R2 does not affect the ability for NERC and the Regional Entities to require Reliability Coordinators to produce documentation to monitor compliance with PRC-022-1 R1 and its sub-requirements. Furthermore, PRC-022-1 R1 already requires that the entity document UVLS performance:

Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall analyze and document all UVLS operations and Misoperations.

Accordingly, retiring PRC-022-1 R2 presents no gap to reliability or to the information NERC and the Regional Entities need to monitor compliance. In this context, a review of R2 indicates that it is a needlessly burdensome administrative and data collection requirement that does little, if anything, to benefit or protect the reliable operation of the BES. (Criteria A, B1 and B2). Also, similar to the retention of records requirements in CIP-007-3, -4 R7.3, FAC-002-1 R2 and PRC-010-0 R2, the ERO compliance program efficiency will increase since it will no longer need to track a static requirement of whether a UVLS program assessment was submitted within 30 days of a request by NERC or the Regional Entity, and instead, compliance monitoring may focus on the more substantive requirements of PRC-022-1.

## Criterion A

R2 is an administrative and data collection requirement that does little, if anything, to benefit or protect the reliable operation of the BES.

## Criteria B

- Criterion B1(Administrative)
- Criterion B2 (Data Collection/Data Retention)

## Criteria C

1. PRC-022-1 R2 has not been part of a FFT filing.

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<sup>67</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

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2. PRC-022-1 R2 is subject to Standards Development Project 2008-02 Undervoltage Load Shedding, which is not currently active and is only estimated to be completed until the second quarter of 2014. Since the purpose of Project 2008-02 does not necessarily include a review of R2 and its 2014 completion date is well into the future, it is appropriate to include PRC-022-1 R2 in the P81 Project.
3. PRC-022-1 R2 has a Lower VRF.
4. This requirement is not part of the AML.
5. The retirement of PRC-022-1 R2 does not pose any negative impact to NERC's published and posted reliability principles, particularly since submission of a program assessment or documentation of its analysis of UVLS program performance to a Regional Entity does not seem to implicate any of the principles.
6. For similar reasons, there is no negative impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
7. The retirement of PRC-022-1 R2 promotes a results-based approach because it is a data collection requirement, and, therefore, does not provide the foundation for performing a reliability task.

Accordingly, for the above reasons, it is appropriate to retire PRC-022-1 R2.

## \*\*VAR-001-2 R5 – Voltage and Reactive Control

- R5.** Each Purchasing-Selling Entity and Load Serving Entity shall arrange for (self-provide or purchase) reactive resources – which may include, but is not limited to, reactive generation scheduling; transmission line and reactive resource switching; and controllable load– to satisfy its reactive requirements identified by its Transmission Service Provider.

### **Background/Commission Directives**

VAR-001-1 was submitted for Commission approval on April 4, 2006, in Docket No. RM06-16-000. When approving VAR-001-1, in Order No. 693 at paragraph 1858,<sup>68</sup> the Commission recognized:

... that all transmission customers of public utilities are required to purchase Ancillary Service No. 2 under the OATT or self-supply, but the OATT does not require them to provide information to transmission

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<sup>68</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

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operators needed to accurately study reactive power needs. The Commission directs the ERO to address the reactive power requirements for LSEs on a comparable basis with purchasing-selling entities.

On September 9, 2010, NERC submitted VAR-001-2, which included revisions to Requirement R5 to satisfy Commission directives in Order No. 693, including the directive in paragraph 1858. This directive was addressed by adding “Load Serving Entities” to the standard as applicable entities and making them subject to the same requirements as Purchasing Selling Entities. These modifications to VAR-001-2 were accepted by the Commission on January 10, 2011.<sup>69</sup>

## Technical Justification

VAR-001-2 R5 does little, if anything, to benefit or protect the reliable operation of the BES because it is redundant with FERC’s *pro forma* open access transmission tariff (“OATT”). (Criteria A and B7). To elaborate, VAR-001-2 R5 provides for the PSE and LSE (transmission customers) to arrange for or self provide reactive resources the same as required under Schedule 2 of the OATT. Specifically, as a general matter Schedule 2 of the OATT states:

### **Schedule 2 Reactive Supply and Voltage Control from Generation or Other**

In order to maintain transmission voltages on the Transmission Provider's transmission facilities within acceptable limits, generation facilities and non-generation resources capable of providing this service that are under the control of the control area operator) are operated to produce (or absorb) reactive power. Thus, Reactive Supply and Voltage Control from Generation or Other Sources Service must be provided for each transaction on the Transmission Provider's transmission facilities. The amount of Reactive Supply and Voltage Control from Generation or Other Sources Service that must be supplied with respect to the Transmission Customer's transaction will be determined based on the reactive power support necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by the Transmission Provider.

Reactive Supply and Voltage Control from Generation or Other Sources Service is to be provided directly by the Transmission Provider (if the Transmission Provider is the Control Area operator) or indirectly by the Transmission Provider making arrangements with the Control Area operator that performs this service for the Transmission Provider's Transmission System. The Transmission Customer must purchase this service from the Transmission Provider or the Control Area operator. A

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<sup>69</sup> *North American Electric Reliability Corp.*, 134 FERC ¶ 61,015 (2011).

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Transmission Customer may satisfy all or part of its obligation through self provision or purchases provided that the self-provided or purchased reactive power reduces the Transmission Provider's reactive power requirements and is from generating facilities under the control of the Transmission Provider or Control Area operator. The Transmission Customer's Service Agreement shall specify any such reactive supply arrangements. To the extent the Control Area operator performs this service for the Transmission Provider, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Provider by the Control Area operator. The Transmission Provider's rates for Reactive Supply and Voltage Control from Generation Sources Services shall be set out in Appendix A to this Schedule.

Given the importance of the procurement or self providing of reactive power, even in a market setting a form of Schedule 2 is found in the tariffs of MISO and PJM, for example. Also, other contractual mechanism, such as Interchange agreements, also are used to ensure transmission customers (such as PSEs and LSEs) provide reactive power. While NERC complied with the Commission's directive to add LSEs to VAR-001-2 R5, a review of this requirement in light of Schedule 2 indicates that the reliability objective of ensuring that PSEs as well as LSEs either acquire or self provide reactive power resources associated with its transmission service requests is accomplished via Schedule 2, and, therefore, there is no need to reiterate it in VAR-001-2 R5. The repetitive nature of VAR-001-2 R5 is also apparent in the context of how a PSE or LSE generally demonstrates compliance – via screenshots from Open Access Same-Time Information System ("OASIS") reservations that show the mandatory acquiring or self providing of reactive power resources per Schedule 2.

The reliability objective of VAR-001-2 is also accomplished in VAR-001-2 R2 (that is not proposed for retirement) which reads:

Each Transmission Operator shall acquire sufficient reactive resources – which may include, but is not limited to, reactive generation scheduling; transmission line and reactive resource switching; [sic] and controllable load – within its area to protect the voltage levels under normal and Contingency conditions. This includes the Transmission Operator's share of the reactive requirements of interconnecting transmission circuits.

The Transmission Operator's adherence to R2 is a double check for the obligations under Schedule 2 to ensure there are sufficient reactive power resources to protect the voltage levels under normal and Contingency conditions. This double check, however, does not relieve PSEs and LSEs from their obligations under Schedule 2 of the OATT or Interchange agreements.

In addition, in the Electric Reliability Council of Texas (ERCOT) region, where there is no FERC approved OATT, reactive power is handled via Section 3.15 of the ERCOT

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Nodal Protocols that describes how ERCOT establishes a Voltage Profile for the grid, and then in detail explains the responsibilities of the Generators, Distribution Providers and Texas Transmission Service Providers (not to be confused with a NERC TSP), to meet the Voltage Profile and ensure that those entities have sufficient reactive support to do so. There is further Operating Guide detail on the responsibilities for entities to deploy reactive resources approximately, within performance criteria in the Operating Guide Section 3. Thus, as in non-ERCOT regions, ERCOT has protocols that are duplicative of VAR-001-2 R5.

Given the redundant nature of VAR-001-2 R5 it would also assist the ERO compliance program to retire it, so that time and resources can be reallocated to focus on adherence to other Reliability Standard requirements.

## **Criterion A**

VAR-001-2 R5 does little, if anything, to benefit or protect the reliable operation of the BES because it is redundant with FERC's *pro forma* OATT.

## **Criteria B**

- Criterion B7 (Redundant)

## **Criteria C**

1. VAR-001-2 R5 has not been part of a FFT filing.
2. VAR-001-2 R5 is subject to Standards Development Project 2008-01 Voltage and Reactive Planning Control. Given that Project 2008-01 is not currently active and is only estimated to be completed until the second quarter of 2014 and the purpose of this project does not necessarily include a review of R5, it is appropriate to include VAR-001-2 R5 in the P81 Project. Also, retiring this requirement via P81 Project may facilitate the efficiency of Project 2008-01.
3. This requirement has a High VRF. However, the reliability objective of VAR-001-2 R5 will be accomplished via Schedule 2 of the OATT, ERCOT protocols and R2 of VAR-001-2. Thus, the High VRF is not dispositive, and VAR-001-2 R5 remains appropriate for retirement.
4. VAR-001-2 R5 is in the third tier of the AML.
5. Because VAR-001-2 R5 is redundant with the *pro forma* OATT and ERCOT protocols, (as well as the reliability objective of VAR-001-2 R5 is accomplished via Schedule 2 of the OATT, ERCOT protocols and R2 of VAR-001-2), the retirement of VAR-001-2 R5 does not pose any negative impact to the following NERC published and posted reliability principles:

- Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under



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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.
6. Retirement does not negatively impact defense in depth because no other requirement depends on it to help cover a reliability gap or risk to reliability.
  7. The retirement of VAR-001-2 R5 is neutral regarding whether it promotes a results-based approach because the requirement is results-based, but already covered in the *pro forma* OATT, Schedule 2 and ERCOT protocols.

Accordingly, for the above reasons, it is appropriate to retire VAR-001-2 R5.

## V. The Initial Phase Reliability Standards Provided for Informational Purposes

The following requirements are already scheduled to be retired or subsumed via another Standards Development Project that has been approved by stakeholders and the NERC Board of Trustees (or due to be before the NERC Board of Trustees in November), and, thus, are presented here for informational purposes only. For regulatory efficiency, these requirements will not be presented for comment and vote, and, therefore, will not be presented to the NERC Board of Trustees for approval or filed with the Commission or Canadian governmental authorities as part of the P81 Project.

### *CIP-001-2a R4 Sabotage Reporting*

- R4.** Each Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, and Load-Serving Entity shall establish communications contacts, as applicable, with local Federal Bureau of Investigation (FBI) or Royal Canadian Mounted Police (RCMP) officials and develop reporting procedures as appropriate to their circumstances.

## **Background**

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CIP-001-1 was filed for Commission approval on November 15, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>70</sup> CIP-001-1a was filed for Commission approval on April 21, 2010 in Docket No. RD10-11-000, and was approved by an unpublished letter order on February 2, 2011.<sup>71</sup>

CIP-001-2a was filed for Commission approval as a Regional Variance for the ERCOT Region, containing an interpretation of CIP-001-1, on June 21, 2011 in Docket No. RD11-6-000 and was approved by unpublished letter order on August 2, 2011.<sup>72</sup>

As part of EOP-004-2, on November 5, 2012, stakeholders approved the retirement of CIP-001-2a R4. EOP-004-2 was approved by the NERC Board of Trustees on November 7, 2012. Thus, CIP-001-2a R4 is presented here for informational purposes only.

## COM-001-1.1 R6- Telecommunications

Each NERCNet User Organization shall adhere to the requirements in Attachment 1-COM-001-0, “NERCNet Security Policy.”

### **Background**

COM-001-1 was submitted for Commission approval on November 15, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>73</sup> COM-001-1.1 was submitted for Commission approval on February 6, 2009 in Docket No. RD09-2-000 as errata and was approved by unpublished letter order on May 13, 2009.<sup>74</sup>

As part of COM-001-2, on September 17, 2012, stakeholders approved the retirement of COM-001-1.1 R6 in Project 2006-06 (Reliability Coordination). This project is due to be presented to the NERC Board of Trustees in November. Thus, COM-001-1 R6 is presented here for informational purposes only.

## EOP-004-1 R1 – Disturbance Reporting

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<sup>70</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>71</sup> Letter Order, Petition of the North American Electric Reliability Corporation for Approval of Interpretation to Reliability Standard CIP-001-1 —Cyber Security— Sabotage Reporting, Requirement R2, Docket No. RD10-11-000 (February 2, 2011).

<sup>72</sup> Letter Order, Petition of the North American Electric Reliability Corporation for Approval of the Reliability Standard CIP-001-2a – Sabotage Reporting with a Regional Variance for Texas Reliability Entity, Docket No. RD11-6-000 (August 2, 2011).

<sup>73</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>74</sup> Letter Order, Electric Reliability Organization Errata Petition Updating Accepted Reliability Coordination and Transmission Operations Reliability Standards, Docket No. RD09-2-000 (May 13, 2009).

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- R1.** Each Regional Reliability Organization shall establish and maintain a Regional reporting procedure to facilitate preparation of preliminary and final disturbance reports.

## **Background**

EOP-004-1 was submitted to the Commission for approval on November 15, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>75</sup>

As part of EOP-004-2, on November 5, 2012, stakeholders approved the retirement of EOP-001-1 R1. EOP-004-2 was approved by the NERC Board of Trustees on November 7, 2012. Thus, EOP-001-1 R1 is presented here for informational purposes only.

## *EOP-009-0 R2 – Documentation of Blackstart Generating Unit Test Results*

- R2.** The Generator Owner or Generator Operator shall provide documentation of the test results of the startup and operation of each blackstart generating unit to the Regional Reliability Organizations and upon request to NERC.

## **Background**

EOP-009-0 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>76</sup> In Order No. 749, the Commission approved the retirement of EOP-009-0 as of July 1, 2013, based on the approval of EOP-005-2, which did not carry forward R2 of EOP-009-0. Thus, EOP-009-0 R2 is presented here for informational purposes only.

## *FAC-008-1 R1.3.5 – Facility Ratings Methodology*

- R1.3.5.** Other assumptions.

## **Background**

FAC-008-1 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>77</sup>

“On May 12, 2010, the NERC Board of Trustees approved the proposed FAC-008-2 Reliability Standard that addressed the first two of the FERC directives in Order No.

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<sup>75</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242, *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>76</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>77</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

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693. NERC's proposed FAC-008-2 Reliability Standard was not filed with FERC for approval, but instead was revisited by the standard drafting team so that the third Order No. 693 directive could be addressed in response to FERC's March 18, 2010 Order...<sup>78</sup>

FAC-008-3 was submitted for Commission approval on June 15, 2011 in Docket No. RD11-10-000 and was approved on November 17, 2011.<sup>79</sup>

FAC-008-3 (which combined FAC-008 and FAC-009) has been approved by the Commission without the "other assumptions" language.<sup>80</sup> Since FAC-008-3 will become effective on January 1, 2013, FAC-008-1 R1.3.5 is presented here for informational purposes only.

## *PRC-008-0 R1; PRC-008-0 R2 – Underfrequency Load Shedding Equipment Maintenance Programs*

- R1.** The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall have a UFLS equipment maintenance and testing program in place. This UFLS equipment maintenance and testing program shall include UFLS equipment identification, the schedule for UFLS equipment testing, and the schedule for UFLS equipment maintenance.
- R2.** The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results to its Regional Reliability Organization and NERC on request (within 30 calendar days).

### **Background**

PRC-008-0 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>81</sup>

Under Standards Development Project 2007-17 Protection System Maintenance, which recently passed on August 27, 2012, PRC-008-0 is scheduled to be retired, subsumed and replaced with PRC-005-2. PRC-005-2 will likely be presented to the NERC Board of

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<sup>78</sup> Petition of the North American Electric Reliability Corporation for Approval of Proposed Reliability Standard FAC-008-3 — Facility Ratings, Docket No. RD11-10-000, (June 15, 2011).

<sup>79</sup> *Order Approving Reliability Standard*, 137 FERC ¶ 61,123 (2011).

<sup>80</sup> *Id.*

<sup>81</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). ("Order No. 693"), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

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Trustees in November for approval, and, thus, PRC-008-0 is only presented here for informational purposes.

## PRC-009-0 R1; PRC-009-0 R1.1; PRC-009-0 R1.2; PRC-009-0 R1.3; PRC-009-0 R1.4; PRC-009-0 R2 – UFLS Performance Following an Underfrequency Event

- R1.** The Transmission Owner, Transmission Operator, Load-Serving Entity and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization’s UFLS program. The analysis shall address the performance of UFLS equipment and program effectiveness following system events resulting in system frequency excursions below the initializing set points of the UFLS program. The analysis shall include, but not be limited to:
- R1.1.** A description of the event including initiating conditions.
  - R1.2.** A review of the UFLS set points and tripping times.
  - R1.3.** A simulation of the event.
  - R1.4.** A summary of the findings.
- R2.** The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to its Regional Reliability Organization and NERC on request 90 calendar days after the system event.

### **Background**

PRC-009-0 was submitted for Commission approval on April 4, 2006 in Docket No. RM06-16-000 and was approved on March 16, 2007 in Order No. 693.<sup>82</sup> In Order No. 763 at paragraph 103<sup>83</sup> the Commission accepted the retirement of PRC-009-0 as appropriately replaced with PRC-006-1. Consistent with Order No. 763, PRC-009-0 will become inactive on September 30, 2013 and will be replaced by PRC-006-1. Thus, PRC-009-0 is presented here for informational purposes only.

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<sup>82</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>83</sup> *Automatic Underfrequency Load Shedding and Load Shedding Plans Re-liability Standards*, 139 FERC ¶ 61,098 (2012).

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## TOP-001-1a R3 – Reliability Responsibilities and Authorities

- R3.** Each Transmission Operator, Balancing Authority, and Generator Operator shall comply with reliability directives issued by the Reliability Coordinator, and each Balancing Authority and Generator Operator shall comply with reliability directives issued by the Transmission Operator, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the Transmission Operator, Balancing Authority, or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions.

### **Background**

TOP-001-1 was submitted for Commission approval on November 15, 2006 in Docket No. RM06-16-000 and was approved by the Commission on March 16, 2007 in Order No. 693.<sup>84</sup> TOP-001-1a was submitted for approval on July 16, 2010 in Docket No. RM10-29-000 and was approved on September 15, 2011 in Order No. 753.<sup>85</sup>

IRO-001-1a R8 reads:

Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities shall comply with Reliability Coordinator directives unless such actions would violate safety, equipment, or regulatory or statutory requirements. Under these circumstances, the Transmission Operator, Balancing Authority, Generator Operator, Transmission Service Provider, Load-Serving Entity, or Purchasing-Selling Entity shall immediately inform the Reliability Coordinator of the inability to perform the directive so that the Reliability Coordinator may implement alternate remedial actions.

Although there is redundancy between TOP-001-1a R3 and IRO-001-1a R8 as related to Reliability Coordinators, this redundancy was addressed in Standards Development Project 2007-03 (Real-time Operations). Specifically, Project 2007-03 eliminated the redundancy in the current version of TOP-001-2 R1 that replaces TOP-001-1a R3 and reads:

Each Balancing Authority, Generator Operator, Distribution Provider, and Load-Serving Entity shall comply with each Reliability Directive issued

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<sup>84</sup> *Mandatory Reliability Standards for the Bulk-Power System*, 72 FR 16416 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242 (2007). (“Order No. 693”), *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>85</sup> *Electric Reliability Organization Interpretation of Transmission Operations Reliability Standard*, 136 FERC ¶ 61,176, (September 15, 2011) (Order No. 753).

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and identified as such by its Transmission Operator(s), unless such action would violate safety, equipment, regulatory, or statutory requirements.

TOP-001-2 has been approved by the NERC Board of Trustees and will be filed with the Commission for approval; therefore, TOP-001-1a R3 is presented for informational purposes only.

## TOP-005-2a R1 – Operational Reliability Information

- R1.** As a condition of receiving data from the Interregional Security Network (ISN), each ISN data recipient shall sign the NERC Confidentiality Agreement for “Electric System Reliability Data.”

### **Background**

Without directly addressing R1 of TOP-005-1 or TOP-005-2a the Commission approved both versions of TOP-005.<sup>86</sup> A review of the Standards Development Project 2007-03 Real-time Transmission Operations indicates it proposes R1 of TOP-005-1 to be retired. The reasoning provided by the SDT was the following:

Confidentiality is not a reliability issue, but a market or business issue. Since this is not a reliability issue, it does not belong in the Reliability Standards and can be deleted.<sup>87</sup>

As stated above, in the context of Project 2007-03, TOP-001-1a was approved by the NERC Board of Trustees and will be filed with the Commission for approval; therefore, TOP-005-2a R1 is presented for informational purposes only.

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<sup>86</sup> Order No. 693 at paragraphs 1648 through 1652 (approval of TOP-005-1); *Mandatory Reliability Standards for Interconnection Reliability Operating Limits*, 134 F.E.R.C. ¶ 61,213 (2011) (approval of TOP-005-2a).

<sup>87</sup> Mapping Document Project 2007-03 Real-time Operations at page 31 (April 27 2012).

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## Appendix A

Standard	Req.	Criterion A	Criteria B							Criteria C						
			B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	C7
		Reliability Impact	Administrative	Data	Documentation	Reporting	Updates	Commercial	Redundant	FFT	Ongoing Project	VRF	AML Tier	Reliability Principles Implicated?	In-depth Protection Implicated?	Results-based promoted?
<b>BAL-005-0.2b</b>	<b>R2</b>	√							√			H		No	No	Yes
<b>CIP-003-3, -4</b>	<b>R1.2</b>	√	√							√	√	L	2	No	No	Yes
<b>CIP-003-3, -4</b>	<b>R3, R3.1 R3.2 R3.3</b>	√	√		√					√	√	L	3	No	No	Yes
<b>CIP-003-3, -4</b>	<b>R4.2</b>	√	√		√				√	√	√	L	3	No	No	Yes
<b>CIP-005-3a, -4a</b>	<b>R2.6</b>	√	√		√					√	√	L	1	No	No	Yes
<b>CIP-007-3, -4</b>	<b>R7.3</b>	√	√	√							√	L	1	No	No	Yes
<b>EOP-005-2</b>	<b>R3.1</b>	√	√				√		√			N/A	2	No	No	Yes
<b>FAC-002-1</b>	<b>R2</b>	√	√	√								L	3	No	No	Yes
<b>FAC-008-1</b>	<b>R2, R3</b>	√	√			√		√				L	3	No	No	Yes
<b>FAC-008-3</b>	<b>R4</b>	√	√			√		√				L	3	No	No	Yes



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Standard	Req.	Criterion A	Criteria B							Criteria C						
			B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	C7
		Reliability Impact	Administrative	Data	Documentation	Reporting	Updates	Commercial	Redundant	FFT	Ongoing Project	VRF	AML Tier	Reliability Principles Implicated?	In-depth Protection Implicated?	Results-based promoted?
	<b>R5</b>															
<b>FAC-010-2.1</b>	<b>R5**</b>	√	√			√		√				L		No	No	Yes
<b>FAC-011-2</b>	<b>R5**</b>	√	√			√		√				L		No	No	Yes
<b>FAC-013-2</b>	<b>R3</b>	√	√			√		√				L		No	No	Yes
<b>INT-007-1</b>	<b>R1.2</b>	√	√									L		No	No	Yes
<b>IRO-016-1</b>	<b>R2</b>	√	√	√								L		No	No	Yes
<b>NUC-001-2</b>	<b>R9.1</b> <b>R9.1.1</b> <b>R9.1.2</b> <b>R9.1.3</b> <b>R9.1.4</b>	√	√									N/A	3	No	No	Yes
<b>PRC-010-0</b>	<b>R2</b>	√	√	√								L		No	No	Yes
<b>PRC-022-1</b>	<b>R2</b>	√	√	√								L		No	No	Yes
<b>VAR-001-2</b>	<b>R5**</b>	√							√			H	3	No	No	Yes