



January 21, 2010

**VIA ELECTRONIC FILING**

David Erickson  
President and Chief Executive Officer  
Alberta Electric System Operator  
2500, 330 – 5 Avenue SW  
Calgary, Alberta  
T2P 0L4

Re: *North American Electric Reliability Corporation*

Dear Mr. Erickson:

The North American Electric Reliability Corporation (“NERC”) hereby submits this Notice of Filing of Violation Severity Level (“VSL”) assignments for Reliability Standards: CIP-002-2, CIP-003-2, CIP-004-2, CIP-005-2, CIP-006-2, CIP-007-2, CIP-008-2, and CIP-009-2, and of Violation Risk Factors (“VRFs”) for CIP-003-2 and CIP-006-2, set forth in **Exhibit A** to this petition. The NERC Board of Trustees approved the proposed Reliability Standard VSL and VRF assignments on December 16, 2009.

NERC’s notice consists of the following:

- This transmittal letter;
- A table of contents for the entire notice;
- A discussion of the filing ;
- **Exhibit A:**
  - CIP Version 2 Reliability Standard Violation Severity Levels;
  - CIP Version 2 Reliability Standard CIP-003-2 and CIP-006-2 Violation Risk Factor Assignments;

- **Exhibit B** — Record of Development of Proposed CIP Version 2 Reliability Standard Violation Severity Levels and Violation Risk Factor Assignments;
- **Exhibit C** — CIP Version 2 Violation Severity Level and Violation Risk Factor Drafting Team Roster;
- **Exhibit D** — Complete Matrix of Violation Severity Levels for Reliability Standards; and
- **Exhibit E** — Complete Matrix of Violation Risk Factors.

Please contact the undersigned if you have any questions regarding this filing.

Respectfully submitted,

/s/ Holly A. Hawkins

Holly A. Hawkins

Attorney for North American

Electric Reliability Corporation

**BEFORE THE  
ALBERTA ELECTRIC SYSTEM OPERATOR**

**NORTH AMERICAN ELECTRIC )  
RELIABILITY CORPORATION )**

**NOTICE OF FILING OF THE  
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION  
OF VIOLATION SEVERITY LEVELS TO CRITICAL INFRASTRUCTURE  
PROTECTION (CIP) VERSION 2 RELIABILITY STANDARDS CIP-002-2  
THROUGH CIP-009-2 AND VIOLATION RISK FACTORS FOR CIP-003-2 AND  
CIP-006-2**

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January 21, 2010

## TABLE OF CONTENTS

I.	Introduction	1
II.	Notices and Communications	2
III.	Discussion of Filing	3
	a. Background	3
	b. Summary of Development of CIP Version 2 Reliability Standard Violation Severity Levels and Violation Risk Factors	3
IV.	Conclusion	7

**Exhibit A** — CIP Version 2 Reliability Standard Violation Severity Levels ; CIP Version 2 Reliability Standard CIP-003-2 and CIP-006-2 Violation Risk Factor Assignments

**Exhibit B** — Record of Development of Proposed CIP Version 2 Reliability Standard Violation Severity Levels and Violation Risk Factor Assignments;

**Exhibit C** — CIP Version 2 Violation Severity Level/ Violation Risk Factor Drafting Team Roster;

**Exhibit D** — Complete Matrix of Violation Severity Levels for Reliability Standards; and

**Exhibit E** — Complete Matrix of Violation Risk Factors for Reliability Standards

## **I. INTRODUCTION**

The North American Electric Reliability Corporation (“NERC”) hereby submits Violation Severity Levels (“VSLs”) for eight Critical Infrastructure Protection (“CIP”) version 2 Reliability Standards and Violation Risk Factors (“VRF”) assignments for CIP version 2 Reliability Standards. These VSL and VRF assignments relate specifically to the CIP-002-2 through CIP-009-2 Reliability Standards. The CIP-002-2 through CIP-009-2 standards are to take effect on April 1, 2010.

VRFs assess the impact to reliability of violating a single compliance requirement. VSLs define the degree to which compliance with a Reliability Standard requirement was not achieved. Consistent with the NERC Sanction Guidelines, VSLs are considered in conjunction with VRFs in the determination of the possible base penalty range for a violation of a Reliability Standard requirement.

This submittal includes proposed VSLs for the following CIP version 2 Reliability Standards:

- CIP-002-2 — Cyber Security — Critical Cyber Asset Identification
- CIP-003-2 — Cyber Security — Security Management Controls
- CIP-004-2 — Cyber Security — Personnel and Training
- CIP-005-2 — Cyber Security — Electronic Security Perimeter(s)
- CIP-006-2 — Cyber Security — Physical Security of Critical Cyber Assets
- CIP-007-2 — Cyber Security — Systems Security Management
- CIP-008-2 — Cyber Security — Incident Reporting and Response Planning
- CIP-009-2 — Cyber Security — Recovery Plans for Critical Cyber Assets

Also presented in this filing are proposed VRFs for the following CIP version 2 Reliability Standards:

- CIP-003-2 — Cyber Security — Security Management Controls
- CIP-006-2 — Cyber Security — Physical Security of Critical Cyber Assets

On December 16, 2009, the NERC Board of Trustees approved the proposed VSLs and VRFs for the version 2 CIP Reliability Standards, which are set forth in **Exhibit A**. **Exhibit B** contains the complete development record of the VSLs and VRFs. **Exhibit C** contains the Drafting Team Roster. **Exhibit D** contains the complete NERC VSL Assignment Matrix, and **Exhibit E** contains the complete NERC VRF Assignment Matrix. NERC submitted this filing with the Federal Energy Regulatory Commission (“FERC”) on December 18, 2009, and is also submitting this filing for approval of the VSLs and VRFs with the other applicable governmental authorities in Canada.

## II. NOTICES AND COMMUNICATIONS

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

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### **III. DISCUSSION OF FILING**

#### **a. Background**

The CIP version 2 Reliability Standards were developed through the *Reliability Standards Development Process* to address FERC's directives in Order No. 706, issued on January 18, 2008.<sup>1</sup> FERC approved version 1 of the CIP Reliability Standards in Order No. 706,<sup>2</sup> and directed NERC to develop modifications to the CIP Reliability Standards to address specific concerns, including revisions to certain VRF designations.<sup>3</sup> FERC also directed NERC to file VSLs for the CIP-002 through CIP-009 standards before the auditably compliant stage.<sup>4</sup>

On May 22, 2009 NERC filed with FERC the approval of the proposed CIP version 2 standards, that included modifications made in response to FERC's directives in Order No. 706. NERC filed the proposed CIP version 2 standards with this governmental authority on May 27, 2009. In the May 22 filing with FERC, NERC noted that it was not requesting FERC approval for revised VRFs or VSLs at that time, but that it would request approval of revised VRFs and VSLs in a filing to be submitted on or before December 31, 2009. This filing includes the revised VRFs and VSLs for the CIP version 2 Reliability Standards.

#### **b. Summary of Development of CIP Version 2 Reliability Standard Violation Severity Levels and Violation Risk Factors**

NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Reliability Standards*

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<sup>1</sup> *Mandatory Reliability Standards for Critical Infrastructure Protection*, 122 FERC ¶ 61,040 (January 18, 2008) ("Order No. 706").

<sup>2</sup> *See Id.*

<sup>3</sup> *Id.* at PP 757-760.

<sup>4</sup> *Id.* at P 758.

*Development Procedure*, which is incorporated into the Rules of Procedure as Appendix 3A.<sup>5</sup> NERC's proposed rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards. The standards development process is open to any person or entity with a legitimate interest in the reliability of the bulk power system. NERC considers the comments of all stakeholders, and a vote of stakeholders and the NERC Board of Trustees is required to approve a Reliability Standard for submission to FERC. The standard development process was used to obtain stakeholder consensus on the assignment of VSLs for these version 2 CIP Reliability Standards.

In September 2008, the Standards Committee selected the members of the Cyber Security VSL Drafting Team,<sup>6</sup> which consisted of eight members with representation from several Regions. The drafting team members have extensive industry expertise in cyber security and information technology matters. The members of the drafting team represented several industry sectors including regional organizations, independent system operators (ISO) and operating entities. NERC assigned the effort to develop version 2 VRFs and VSLs to Project 2008-06 — Cyber Security Order 706, but assigned a supplemental team of industry participants to accomplish the task so that the Project 2008-06 Cyber Security Order 706 drafting team could focus its time on the development of version 2 of the CIP standards.

The proposed VRFs and VSLs are associated with requirements that were modified when converting standards CIP-002-1 through CIP-009-1 into CIP-002-2

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<sup>5</sup> See NERC's *Reliability Standards Development Procedure*, Approved by the NERC Board of Trustees on March 12, 2007, and Effective June 7, 2007 ("Reliability Standards Development Procedure"), available at [http://www.nerc.com/files/Appendix3A\\_StandardsDevelopmentProcess.pdf](http://www.nerc.com/files/Appendix3A_StandardsDevelopmentProcess.pdf).

<sup>6</sup> This was the same group that drafted the Standard Authorization Request ("SAR").



through CIP-009-2. The team posted a set of VSLs and VRFs for the version 2 CIP standards for industry comment from March 16, 2009 through April 20, 2009. The proposed VRFs and VSLs for the version 2 CIP standards were modified from the version 1 VRFs and VSLs reflecting the necessary changes resulting from the transition to version 2 CIP standards. In this regard, requirements that were not changed in the transition to version 2 carry forward the version 1 VRFs and VSLs for those requirements.

In proposing VSLs, the team considered the FERC guidelines for developing VSLs offered in its June 2008 Order.<sup>7</sup> The team also compared proposed VRF assignments for version 2 to those offered for similar requirements in version 1 for consistency purposes. During the comment period, 12 sets of comments were offered by over 60 individuals representing 45 different companies. Based on stakeholder comments received, the drafting team made some clarifying and formatting changes to some of the sets of VSLs, and in some cases, added more options to the already proposed VSLs where they met the category definitions. Some stakeholders were opposed to setting noncompliance with a binary requirement or sub-requirement at a “Severe” VSL that is the established norm for this type of requirement. Other stakeholders commented that the drafting team should have used the roll-up approach for setting VSLs for requirements and its associated sub-requirements. The team generally agreed. However, the VSLs were developed prior to the NERC informational filing describing NERC’s revised guidelines using VSLs assigned to main requirements for subordinate

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<sup>7</sup> See *Order on Violation Severity Levels Proposed by the Electric Reliability Organization*, 123 FERC ¶ 61,284 (June 19, 2008).

requirement components, informally known as the “roll-up” approach.<sup>8</sup> As such, with minor exception, the drafting team assigned a set of VSLs to each requirement and each sub-requirement that has an assigned VRF. No changes to the VRFs were made in response to the industry comments.

Proposed VSLs for CIP standards CIP-002-2 through CIP-009-2 and VRFs for CIP-003-2 and CIP-006-2 were posted for a 30-day pre-ballot review from August 11, 2009 through September 10, 2009. The initial ballot was conducted from September 10, 2009 through September– 21, 2009, and achieved a quorum of 87.45 percent with a weighted affirmative approval of 94.18 percent. Four negative ballots with comments were submitted, necessitating a recirculation ballot. Commenters indicated that the VSLs need to account for “risk,” and the drafting team explained that the risk associated with noncompliance is identified by the VRF, not the VSL. Other commenters proposed modifications to the requirements, an activity outside the scope of this project. Other commenters challenged the assignment of binary requirements at the Severe VSL that already was addressed in the industry comment period. One comment identified an error that was corrected.

A recirculation ballot was conducted from November 2, 2009 through November 12, 2009. The recirculation ballot approved the proposed VSLs and VRFs, achieving a quorum of 88.70 percent with a weighted affirmative approval of 94.24 percent.

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<sup>8</sup> See NERC’s Informational Filing Regarding the Assignment of Violation Risk Factors and Violation Severity Levels filed with FERC on August 10, 2009 in Docket Nos. RM08-11-000, RR04-8-000, RR07-9-000 and RR07-10-000. The revised Guidelines address three key areas: (i) the structure and formatting of requirements, (ii) the assignment of VRFs and (iii) the assignment of VSLs. The Guidelines discuss how to properly address VRFs and VSLs for existing Reliability Standards.

#### IV. CONCLUSION

NERC requests that the AESO take the steps necessary to make the proposed VSLs and VRFs, as set forth in Exhibit A, effective within the province of Alberta.

Respectfully submitted,

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**Exhibits A – E**

(Available on the NERC Website at

[http://www.nerc.com/fileUploads/File/Filings/CIP\\_V2\\_VSL\\_Attachments.  
pdf\)](http://www.nerc.com/fileUploads/File/Filings/CIP_V2_VSL_Attachments.pdf)