

# Standard PRC-004-2 – Analysis and Mitigation of Transmission and Generation Protection System Misoperations

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## Standard Development Roadmap

*This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.*

**Modified to address Order No. 693 Directives contained in paragraphs 1469.**

### Development Steps Completed:

1. SAR posted for comment (June 18, 2010 through July 13, 2010).
2. First draft of proposed standard posted (June 18, 2010 through July 13, 2010).
3. Posted for 15-day pre-ballot review (June 18 ~~through~~ July 2, 2010).
4. Initial ballot. (July 2 ~~through July~~ 14, 2010).

### Proposed Action Plan and Description of Current Draft:

This is the first draft of the proposed standard. Changes were made to the standard following the first ballot based on stakeholder comments. The modifications included in this standard are being proposed through an expedited process in order to be responsive to directives from FERC Order No. 693.

### Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post response to comments on initial ballot.	July 20, 2010
2. Conduct recirculation ballot.	July 20 – 30, 2010
3. Submit standard to BOT for adoption.	August 2010
4. File standard with regulatory authorities.	September 2010

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### Definitions of Terms Used in Standard

*This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.*

**None.**

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### A. Introduction

1. **Title:** Analysis and Mitigation of Transmission and Generation Protection System Misoperations
2. **Number:** PRC-004-~~1~~2
3. **Purpose:** Ensure all transmission and generation Protection System Misoperations affecting the reliability of the Bulk Electric System (BES) are analyzed and mitigated.
4. **Applicability**
  - 4.1. Transmission Owner.
  - 4.2. Distribution Provider that owns a transmission Protection System.
  - 4.3. Generator Owner.
5. **(Proposed) Effective Date:** The first day of the first calendar quarter, one year after applicable regulatory approval; or in those jurisdictions where no regulatory approval is required, the first day of the first calendar quarter one year after Board of Trustees' adoption.~~August 1, 2006~~

### B. Requirements

- R1. The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional ~~Reliability Organization~~Entity's procedures ~~developed for Reliability Standard PRC-003 Requirement 1.~~
- ~~R1.~~R2. The Generator Owner shall analyze its generator Protection System Misoperations, and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional ~~Reliability Organization~~Entity's procedures ~~developed for PRC-003-R1.~~
- R3. The Transmission Owner, any Distribution Provider that owns a transmission Protection System, and the Generator Owner shall each provide to its Regional ~~Reliability Organization~~Entity, documentation of its Misoperations analyses and Corrective Action Plans according to the Regional ~~Reliability Organization~~Entity's procedures ~~developed for PRC-003 R1.~~

### C. Measures

- M1.** The Transmission Owner, and any Distribution Provider that owns a transmission Protection System shall each have evidence it analyzed its Protection System Misoperations and developed and implemented Corrective Action Plans to avoid future Misoperations of a similar nature according to the Regional ~~Reliability Organization~~Entity's procedures ~~developed for PRC-003 R1.~~
- M2.** The Generator Owner shall have evidence it analyzed its Protection System Misoperations and developed and implemented Corrective Action Plans to avoid future Misoperations of a similar nature according to the Regional ~~Reliability Organization~~Entity's procedures ~~developed for PRC-003 R1.~~
- M3.** Each Transmission Owner, and any Distribution Provider that owns a transmission Protection System, and each Generator Owner shall have evidence it provided documentation of its Protection System Misoperations, analyses and Corrective Action Plans according to the Regional ~~Reliability Organization~~Entity's procedures ~~developed for PRC-003 R1.~~

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance ~~Monitoring Responsibility~~ Enforcement Authority

Regional ~~Reliability Organization~~ Entity.

1.2. Compliance Monitoring Period and Reset Time Frame

~~One calendar year.~~ Not applicable.

1.3. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

~~1.3.1.4.~~ 1.4. Data Retention

The Transmission Owner, and Distribution Provider that own a transmission Protection System and the Generator Owner that owns a generation Protection System shall each retain data on its Protection System Misoperations and each accompanying Corrective Action Plan until the Corrective Action Plan has been executed or for 12 months, whichever is later.

The Compliance Monitor shall retain any audit data for three years.

~~1.4.1.5.~~ 1.5. Additional Compliance Information

The Transmission Owner, and any Distribution Provider that owns a transmission Protection System and the Generator Owner shall demonstrate compliance through self-certification or audit (periodic, as part of targeted monitoring or initiated by complaint or event), as determined by the Compliance Monitor.

2. Violation Severity Levels (no changes) of Non-Compliance for Transmission Owners and Distribution Providers that own a Transmission Protection System:

~~2.1. Level 1: Documentation of Misoperations is complete according to PRC-004 R1, but documentation of Corrective Action Plans is incomplete.~~

~~2.2. Level 2: Documentation of Misoperations is incomplete according to PRC-004 R1 and documentation of Corrective Action Plans is incomplete.~~

~~2.3. Level 3: Documentation of Misoperations is incomplete according to PRC-004 R1 and there are no associated Corrective Action Plans.~~

~~2.4. Level 4: Misoperations have not been analyzed and documentation has not been provided to the Regional Reliability Organization according to Requirement 3.~~

~~3. Levels of Non-Compliance for Generator Owners~~

~~3.1. Level 1: Documentation of Misoperations is complete according to PRC-004 R2, but documentation of Corrective Action Plans is incomplete.~~

## Standard PRC-004-2 – Analysis and Mitigation of Transmission and Generation Protection System Misoperations

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~~3.2. Level 2: Documentation of Misoperations is incomplete according to PRC-004-R2 and documentation of Corrective Action Plans is incomplete.~~

~~3.3. Level 3: Documentation of Misoperations is incomplete according to PRC-004-R2 and there are no associated Corrective Action Plans.~~

~~3.4. Level 4: Misoperations have not been analyzed and documentation has not been provided to the Regional Reliability Organization according to R3.~~

### E. Regional Differences

None identified.

### Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1	December 1, 2005	1. Changed incorrect use of certain hyphens (-) to “en dash” (–) and “em dash (—).” 2. Added “periods” to items where appropriate. Changed “Timeframe” to “Time Frame” in item D, 1.2.	01/20/06
<u>2</u>	<u>TBD</u>	<u>Modified to address Order No. 693 Directives contained in paragraph 1469.</u>	<u>Revised.</u>