

## 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.*

### Development Steps Completed:

1. Draft SAR Version 1 posted January 15, 2007
2. Draft SAR Version 1 Comment Period ended February 14, 2007
3. Draft SAR Version 2 and comment responses on SAR version 1 posted March 19, 2007
4. Draft Version 2 SAR comment period ended April 17, 2007
5. SAR version 2 and comment responses for SAR version 2 accepted by SC and SDT appointed in June 2007.
6. First posting of revised standards on August 5, 2008 with comment period closed on September 16, 2008.
7. Draft Version 2 of standards and response to comments September 16, 2008 – May 26, 2009.

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

The SDT began working on revisions to the standards in August 2007. The current posting contains revisions based on stakeholder comments on the first draft. The team is seeking comments on the revised standards.

### Future Development Plan:

Anticipated Actions	Anticipated Date
1. Second Posting of draft standards,	July-August 2009
2. Respond to comments on second posting	August 2009
3. Post Standards for pre-ballot period.	September 2009
4. Standards posted for initial and recirculation ballots.	October 2009
5. Standards sent to BOT for approval.	December 2009
6. Standards filed with regulatory authorities.	January 2010

### 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.*

**Adverse Reliability Impact** – The impact of an event that results in Bulk Electric System ~~frequency-related~~ instability; ~~unplanned tripping of load or generation; or~~ uncontrolled separation or cascading outages ~~that affects a widespread area of the Interconnection.~~

## A. Introduction

1. **Title:** Reliability Coordination – Responsibilities and Authorities
2. **Number:** IRO-001-2
3. **Purpose:** To establish requirements for issuance of and complying with Reliability Coordinator directives or notification within the Reliability Coordinator Areas.
4. **Applicability**
  - 4.1. Reliability Coordinators.
  - 4.2. Transmission Operators.
  - 4.3. Balancing Authorities.
  - 4.4. Generator Operators.
  - 4.5. Transmission Service Providers.
  - 4.6. Load-Serving Entities.
  - 4.7. Distribution Providers.
  - 4.8. Purchasing-Selling Entities.
5. **Effective Date:** In those jurisdictions where regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after Board of Trustees approval.

## B. Requirements

- R1. ~~The Each~~ Reliability Coordinator shall act or direct -actions to be taken by Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, Distribution Providers and Purchasing-Selling Entities within its Reliability Coordinator Area to prevent or mitigate the magnitude or duration of events that result in Adverse Reliability Impacts. *[Violation Risk Factor: High][Time Horizon: Real-time Operations and Same Day Operations]*
- R2. ~~Each~~ Transmission Operators, Balancing ~~Authorities~~Authority, Generator Operators, Transmission Service Providers, Load-Serving ~~Entities~~Entity, Distribution Provider, and Purchasing-Selling ~~Entities~~Entity shall ~~act without intentional delay to~~ comply with ~~its~~ Reliability Coordinator's directives unless such actions would violate safety, equipment, or regulatory or statutory requirements. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations and Same Day Operations]*
- R3. ~~The Each~~ Transmission Operator, Balancing Authority, Generator Operator, Transmission Service Provider, Load-Serving Entity, Distribution Provider, ~~and/or~~ Purchasing-Selling Entity shall ~~immediately confirm the ability to comply with the directive or~~ inform ~~the~~ ~~its~~ Reliability Coordinator upon recognition of ~~its~~ ~~he~~ inability to perform ~~the~~ directive. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations and Same Day Operations]*
- R4. Each Reliability Coordinator ~~who~~ ~~that~~ identifies an expected or actual threat with Adverse Reliability Impacts, within its Reliability Coordinator Area shall notify, ~~without intentional delay~~; all impacted Transmission Operators and Balancing Authorities in its Reliability

Coordinator Area. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

- R5. Each Reliability Coordinator ~~who~~ that identifies an expected or actual threat with Adverse Reliability Impacts, within its Reliability Coordinator Area shall notify, ~~without intentional delay~~; all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area when the transmission problem has been mitigated. *[Violation Risk Factor: Medium~~High~~] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*
- R6. Each Reliability Coordinator shall provide its Operating Personnel with the authority to veto planned outages to its own analysis tools. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

### C. Measures

- M1. Each Reliability Coordinator shall have and provide evidence which may include, but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that ~~they~~ it ~~has~~ have acted, or issued directives, to prevent or mitigate the magnitude or duration of Adverse Reliability Impacts within its Reliability Coordinator Area. (R1)
- M2. Each Transmission Operator, Balancing Authority, Generator Operator, Transmission Service Provider, Load-Serving Entity, Distribution Provider ~~or~~ and Purchasing-Selling Entity shall have and provide evidence which may include, but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it ~~acted without delay to comply~~ with ~~the~~ its Reliability Coordinator's directives unless such actions would have violated safety, equipment, or regulatory or statutory requirements. (R2)
- M3. Each Transmission Operator, Balancing Authority, Generator Operator, Transmission Service Provider, Load-Serving Entity, Distribution Provider ~~or~~ and Purchasing-Selling Entity shall have and provide evidence which may include, but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it that it informed the Reliability Coordinator of its inability to comply with ~~the~~ its Reliability Coordinator's directives. (R3)
- M4. Each Reliability Coordinator shall have and provide evidence which may include, but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it notified; ~~without intentional delay~~; all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area when it identified a real or potential threat with Adverse Reliability Impacts, within its Reliability Coordinator Area. (R4)
- M5. Each Reliability Coordinator shall have and provide evidence which may include, but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it notified; ~~without intentional delay~~; all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area when ~~the~~ a real or potential threat with Adverse Reliability Impacts within its Reliability Coordinator Area had ~~s~~ been mitigated. (R5)
- M6. Each Reliability Coordinator shall have and provide upon request evidence that could include, but is not limited to, a documented procedure or equivalent evidence that will be used to

confirm that the Reliability Coordinator has provided its Operating Personnel with the authority to veto planned outages of its own analysis tools. (R6)

## D. Compliance

### 1. Compliance Monitoring Process

#### 1.1. Compliance Enforcement Authority

~~NERC shall be responsible for compliance monitoring of the Regional Entity.~~

~~Regional Entities shall be responsible for compliance monitoring of the Reliability Coordinators, Transmission Operators, Generator Operators, Distribution Providers, and Load Serving Entities.~~

#### 1.2. Compliance Monitoring Period and Reset Time Frame

Not applicable

#### ~~1.3. One or more of the following methods will be used to assess compliance:~~

~~— Self-certification (Conducted annually with submission according to schedule.)~~

~~— Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)~~

~~— Periodic Audit (Conducted once every three years according to schedule.)~~

~~— Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)~~

~~The Performance Reset Period shall be 12 months from the last finding of non-compliance.~~

#### 1.2.1.3. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

#### 1.3.1.4. Data Retention

The Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, Distribution Provider, Transmission Service Provider, Purchasing-Selling Entity and Load Serving Entity shall each keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

- Each Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, Distribution Provider, Transmission Service Provider, Purchasing-Selling Entity and Load Serving Entity shall retain its current, in force document and any documents in force since the last compliance audit for all Requirements and Measures.
- If a Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, Distribution Provider, Transmission Service Provider, Purchasing-Selling Entity or Load Serving Entity is found non-compliant, it shall keep information related to the non-compliance until found compliant.
- The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

1.4.1.5. Additional Compliance Information

None.

2. Violation Severity Levels

Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	N/A	N/A	<del>The Reliability Coordinator failed to act to prevent or mitigate the magnitude or duration of Adverse Reliability Impacts.</del> <u>N/A</u>	The Reliability Coordinator failed to act <del>or</del> <u>and</u> direct actions to prevent or mitigate the magnitude or duration of Adverse Reliability Impacts
R2	N/A	<del>The responsible entity followed the Reliability Coordinators directive with a delay not caused by equipment problems.</del> <u>N/A</u>	<del>The responsible entity followed the majority of the Reliability Coordinators directive but did not fully follow the directive because it would violate safety, equipment, statutory or regulatory requirements.</del> <u>N/A</u>	The responsible entity <u>failed to follow the Reliability Coordinator directive and it would not have violated the safety, equipment, statutory or regulatory requirements.</u> <del>did not follow the Reliability Coordinators directive.</del>
R3	<del>The responsible entity failed to immediately confirm the ability to comply with the directive issued by the Reliability Coordinator.</del> <u>N/A</u>	N/A	N/A	The responsible entity failed to inform <del>the</del> <u>its</u> Reliability Coordinator upon recognition of <del>the</del> <u>its</u> inability to perform the directive.
R4	<u>The Reliability Coordinator who identified an expected or actual threat with Adverse Reliability Impacts within its Reliability Coordinator Area and failed to issue an alert to one, but not all, impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area.</u> <u>N/A</u>	<u>The Reliability Coordinator who identified an expected or actual threat with Adverse Reliability Impacts within its Reliability Coordinator Area and failed to issue an alert to two, but not all, impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area.</u> <u>N/A</u>	<u>The Reliability Coordinator who identified an expected or actual threat with Adverse Reliability Impacts within its Reliability Coordinator Area and failed to issue an alert to three or more, but not all, impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area.</u> <u>N/A</u>	The Reliability Coordinator <del>who</del> identified an expected or actual threat with Adverse Reliability Impacts within its Reliability Coordinator Area <u>and</u> failed to issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area.

R5	<p><u>The Reliability Coordinator issued an alert to notify entities of a transmission problem but failed to notify one, but not all, impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated.</u></p>	<p><u>The Reliability Coordinator issued an alert to notify entities of a transmission problem but failed to notify two, but not all, impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated.</u> <del>N/A</del></p>	<p><u>The Reliability Coordinator issued an alert to notify entities of a transmission problem but failed to notify three or more, but not all, impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated.</u> <del>N/A</del></p>	<p>The Reliability Coordinator issued an alert to notify entities of a transmission problem but failed to notify all impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated.</p>
R6	N/A	N/A	N/A	<p><u>The Reliability Coordinator failed to provide its operating personnel with the authority to veto planned outages of its own analysis tools.</u></p>





Standard IRO-001-2 — Reliability Coordination — Responsibilities and Authorities

Requirement	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	N/A	N/A	The Reliability Coordinator failed to act to prevent or mitigate the magnitude or duration of Adverse Reliability Impacts.	The Reliability Coordinator failed to act and direct actions to prevent or mitigate the magnitude or duration of Adverse Reliability Impacts
R2	N/A	The responsible entity followed the Reliability Coordinators directive with a delay not caused by equipment problems.	The responsible entity followed the majority of the Reliability Coordinators directive but did not fully follow the directive because it would violate safety, equipment, statutory or regulatory requirements.	The responsible entity did not follow the Reliability Coordinators directive.
R3	The responsible entity failed to immediately confirm the ability to comply with the directive issued by the Reliability Coordinator.	N/A	N/A	The responsible entity failed to inform the Reliability Coordinator upon recognition of the inability to perform the directive.
R4	N/A	N/A	N/A	The Reliability Coordinator who identified an expected or actual threat with Adverse Reliability Impacts within its Reliability Coordinator Area failed to issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area.
R5	N/A	N/A	N/A	The Reliability Coordinator failed to notify all impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated.

**E. Regional Variances**

None identified.

**Version History**

<b>Version</b>	<b>Date</b>	<b>Action</b>	<b>Change Tracking</b>
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata
<b>1</b>	<b>November 1, 2006</b>	<b>Adopted by Board of Trustees</b>	<b>Revised</b>
<b>1</b>	<b>April 4, 2007</b>	<b>Approved by FERC — Effective Date</b>	<b>New</b>
<b>2</b>	<b>TBD</b>	<b>Revised per SAR for project 2006-6, reliability Coordination; added VRFs and VSLs as approved from VRF and VSL projects</b>	<b>Revised</b>