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 2of standards and response to comments September 16, 2008–May 26, 2009.
8. Second posting of revised standards on July 10, 2009 with comment period closed on August 9, 2009.
9. ~~RCSDT~~RC SDT coordinated with OPCP SDT and RTO SDT on definitions relating to directives and three part communication and Draft Version 3 of standards and response to comments August 9–November 20, 2009.
10. Third posting of revised standards on January 4, 2010 with comment period closed on February 3, 2010.
11. Initial Ballot conducted February 25 through March 7, 2011.

Proposed Action Plan and Description of Current Draft:

The SDT began working on revisions to the standards in August 2007. Following the initial ballot the project was subdivided with some standards moving forward ahead of others. Proposed modifications to IRO-001 were subdivided into two phases – with the first phase the recommended retirement of Requirement R7 as a conforming change associated with approval of IRO-014-2. IRO-001-3 is the second phase and includes more extensive edits to the standard. The current posting contains revisions based on stakeholder comments on the ~~second draft~~initial ballot. The team is posting for a ~~30 day pre-~~successive ballot ~~review~~.

~~.~~

Future Development Plan:

Anticipated Actions	Anticipated Date
1. ~~Respond to comments on third posting~~Post Standards for a successive ballot.	~~March 2010~~January-February 2012
2. ~~Post Standards for pre-~~Respond to comments on Successive ballot ~~period.~~	~~January 2011~~March - April 2012
3. Standards posted for ~~initial and~~ recirculation ~~ballots.~~ballot	~~February 2011~~May 2012

4. Standards to be sent to BOT for approval.	~~April 2011~~June 2012
5. Standards filed with regulatory authorities.	~~June 2011~~August 2012

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.

The RC SDT proposes modifying the following approvednew definition:

~~**Adverse Reliability Impact:** The impact of an event that results in Bulk Electric System instability uncontrolled separation or Cascading.~~

Reliability Directive: A communication initiated by a Reliability Coordinator, Transmission Operator or Balancing Authority where action by the recipient is necessary to address an ~~actual or expected~~ Emergency or Adverse Reliability Impact.

This defined term is contained in draft COM-002-2 and IRO-001-2.

As a reference, we have included the existing definition of Emergency and the BOT approved definition of Adverse Reliability Impact[1]:

Emergency: Any abnormal system condition that requires automatic or immediate manual action to prevent or limit the failure of transmission facilities or generation supply that could adversely affect the reliability of the Bulk Electric System.

Adverse Reliability Impact: The impact of an event that results in Bulk Electric System instability or Cascading.

[1] This definition was approved by the NERC Board of Trustees on August 4, 2011. Filing with regulatory authorities is pending.

A. Introduction

1. Title: **Reliability Coordination – Responsibilities and Authorities**

2. Number: IRO-001-23

3. Purpose: To establish the capability and authority of Reliability Coordinators to direct other entities to prevent an Emergency or Adverse Reliability Impacts to the Bulk Electric System.

4. Applicability

4.1. Reliability Coordinators.Coordinator

4.2. Transmission Operators.Operator

4.3. Balancing Authorities.Authority

4.4. Generator Operators.Operator

4.5. Interchange Coordinators.

4.6.4.5. Distribution Providers.Provider

4.7. Electric Reliability Organization.

5. Effective Date: In those jurisdictions where regulatory approval is required, this standard shall become effective on the first day of the firstsecond 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 Electric Reliability Organization Each Regional Reliability Organization, subregion, or interregional coordinating group shall establish certify at least one or more Reliability Coordinators to continuously assess transmission reliability and coordinate emergency operations among the operating entities within each region and across the regional boundaries. *[Violation Risk Factor: High][Time Horizon: Operations Assessment]*

R2.R1. Each Reliability Coordinator shall take actionshave the authority to act or direct actions, others to act (which could include issuing Reliability Directives, of Transmission Operators, Balancing Authorities, Generator Operators, Interchange Coordinators and Distribution Providers within its Reliability Coordinator Area) to prevent identified events or mitigate the magnitude or duration of actual events that result in an Emergency or Adverse Reliability Impacts. *[Violation Risk Factor: High][Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

R3.R2. Each Transmission Operator, Balancing Authority, Generator Operator, Interchange Coordinator and Distribution Provider shall comply with its Reliability Coordinator's direction per Requirement R2 unless compliance with the direction per Requirement R2 can notcannot be physically implemented or unless such actions would violate safety, equipment, regulatory or statutory requirements. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

R4.R3. Each Transmission Operator, Balancing Authority, Generator Operator, Interchange Coordinator and and Distribution Provider shall inform its Reliability Coordinator upon recognition of its inability to perform as directed perin accordance with Requirement

R3R2. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

R5. Each Reliability Coordinator that identifies an expected or actual condition with Adverse Reliability Impacts within its Reliability Coordinator Area shall notify 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]*

R6. Each Reliability Coordinator that identifies an expected or actual condition with Adverse Reliability Impacts within its Reliability Coordinator Area shall notify all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area when the problem has been mitigated. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

R7. [SC1]Each Reliability Coordinator shall provide its System Operators with the authority to approve, deny or cancel planned outages of its own analysis tools. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

R8. Each Reliability Coordinator shall have procedures in place to mitigate the effects of analysis tool outages. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*[SC2]

C. Measures

M1. The Electric reliability Organization shall have and provide evidence which may include, but is not limited to, dated documentation indicating that it certified at least one or more Reliability Coordinators to continuously assess transmission reliability and coordinate emergency operations among the operating entities within the region and across the regional boundaries.

M2.M1. Each Reliability Coordinator shall have and provide evidence which may include, but is not limited to dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it has takenthe authority to take action or directeddirect action, which could have included issuing Reliability Directive(s), to prevent identified events or mitigate the magnitude or duration of actual events that caused Adverse Reliability Impacts within its Reliability Coordinator Area. (R1)

M3.M2. Each Transmission Operator, Balancing Authority, Generator Operator, Interchange Coordinator and Distribution Provider shall have and provide evidence which may include, but is not limited to dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it complied with its Reliability Coordinator's direction(s) per Requirement R1 unless the direction per Requirement R1 could not be implemented or such actions would have violated safety, equipment, regulatory or statutory requirements. In such cases, the Transmission Operator, Balancing Authority, Generator Operator, Interchange Coordinator or Distribution Provider shall have and provide copies of the safety, equipment, regulatory or statutory requirements as evidence for not complying with the Reliability Coordinator's direction. (R2)

M4.M3. Each Transmission Operator, Balancing Authority, Generator Operator, Interchange Coordinator and Distribution Provider shall have and provide evidence which may include, but is not limited to dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or

equivalent documentation, that will be used to determine that it informed the Reliability Coordinator of its inability to perform as directed ~~per~~in accordance with Requirement ~~R1~~R3. (R3)

~~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 all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area when it identified a real or potential condition with Adverse Reliability Impacts, within its Reliability Coordinator Area. (R4)~~

~~M6.~~ ~~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 all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area when a real or potential condition with Adverse Reliability Impacts within its Reliability Coordinator Area had been mitigated. (R5)~~

~~M7.~~ ~~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 System Operator with the authority to approve, deny or cancel planned outages of its own analysis tools. (R6)~~

~~M8.~~ ~~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 that the Reliability Coordinator has procedures in place to mitigate the effects of analysis tool outages. (R7)~~

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

~~Regional Entity~~

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

For Reliability Coordinators that work for their Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

1.2. Compliance Monitoring and Enforcement Processes:

Compliance ~~Audits~~Audit

Self-~~Certifications~~Certification

Spot Checking

Compliance Violation ~~Investigations~~Investigation

Self-Reporting

~~Complaints~~

Complaint

1.3. Data Retention

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

The Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, or Distribution Provider~~, or Interchange Coordinator~~ shall 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:

- The Electric reliability Organization shall retain its evidence for 5 calendar years for Requirement R1~~ and~~, Measure M1.
- The Reliability Coordinator shall retain its evidence for the most recent 90 calendar days for voice recordings or 12 months for documentation for Requirement R2~~ and~~, Measure M2.
- The Transmission Operator, Balancing Authority, Generator Operator, or Distribution Provider ~~or Interchange Coordinator~~ shall retain its evidence for the most recent 90 calendar days for voice recordings or 12 calendar months for documentation for Requirements R3 and R4, Measures M3 and M4.
- ~~The Reliability Coordinator shall retain its current, in force document and any documents in force for the current year and previous calendar year for Requirements R6 and R7 and Measures M6 and M7.~~

~~o~~● If a Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, or Distribution Provider ~~or Interchange Coordinator~~ is found non-compliant, it shall keep information related to the non-compliance until ~~found compliant~~notified by the Compliance Enforcement Authority that the evidence is no longer needed.

~~o~~● The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

1.4. Additional Compliance Information

None.

2. Violation Severity Levels

R#	Lower VSL	Moderate VSL	High VSL	Severe VSL
~~R1~~	~~N/A~~	~~N/A~~	~~N/A~~	~~The Regional Entity failed to ensure that at least one Reliability Coordinator was certified in its region.~~
~~R2~~R1	N/A	N/A	N/A	The Reliability Coordinator failed to take action or direct actions, ~~which could have included issuing Reliability Directive(s), for actions to be taken~~ to prevent an identified ~~events~~event that resulted in an Adverse Reliability ~~Impacts~~Impact. OR The Reliability Coordinator failed to take action or direct actions~~, which could have included issuing Reliability Directive(s), for actions to be taken~~ to mitigate the magnitude or duration of ~~actual events~~an event that resulted in an Adverse Reliability ~~Impacts~~Impact.
~~R3~~R2	N/A	N/A	~~N/A~~N/A The responsible entity initiated the action directed by the RC, but failed to fully comply with the RC's directive.	The responsible entity did not comply with the Reliability Coordinator's ~~direction per Requirement R1~~directive.
~~R4~~R3	N/A	N/A	N/A	The responsible entity failed to inform its Reliability Coordinator upon recognition of ~~the~~its inability to perform as directed ~~per Requirement R1~~.

E. Regional Variances

None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
1	April 4, 2007	Approved by FERC — Effective Date	New
1	May 19, 2011	Replaced Levels of Noncompliance with FERC-approved VSLs	VSL Order
2	To be determined	Retired Requirement R7 to eliminate redundancy with IRO-014-2, Requirement R1.	Project 2006-06
~~2~~3	TBD	Revised ~~per~~in accordance with SAR for project 2006-6, ~~reliability~~Reliability Coordination; ~~added VRFs~~Revised the standard and ~~VSLs as approved from VRF~~retired six requirements (R2, R4, R5, R6, and ~~VSL projects~~R8).	~~Revised~~Project 2006-06