

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.
8. Second posting of revised standards on July 10, 2009 with comment period closed on August 9, 2009.
9. 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 18, 2010.
11. Draft version 4 of the standard and response to comments February 18, 2010 - February 25, 2011.
12. Initial Ballot conducted February 25 through March 7, 2011.
13. Draft version 5 of the standard and response to comments March 7, 2011 - January 9, 2012.
14. Fifth posting of revised standards on January 9, 2012 with comment period closed on February 9, 2012.
15. Successive ballot conducted January 30 through February 9, 2011.
16. Draft version 6 of the standard and response to comments February 9, 2011 – June 5, 2012.
17. Recirculation ballot conducted June 27 through July 6, 2012.

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-001-2 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 initial ballot. The team is posting for a successive ballot.

Future Development Plan:

<u>Anticipated Actions</u>	<u>Anticipated Date</u>
<u>1. Post standards for a successive ballot.</u>	<u>January-February 2012</u>
<u>2. Respond to comments on Successive ballot</u>	<u>March - April 2012</u>
<u>3. Standards posted for recirculation ballot</u>	<u>June 2012</u>
<u>4. Standards to be sent to BOT for approval.</u>	<u>August 2012</u>
<u>5. Standards filed with regulatory authorities.</u>	<u>October 2012</u>

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 the following new definition:

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

This defined term is contained in draft COM-002-3 and IRO-001-3.

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: Reliability Coordinators must have the authority, plans, and agreements in place to immediately direct reliability entities within their Reliability Coordinator Areas to re-dispatch generation, reconfigure transmission, or reduce load to mitigate critical conditions to return the system to a reliable state. If a Reliability Coordinator delegates tasks to others, the Reliability Coordinator retains its responsibilities for complying with NERC and regional standards. Standards of conduct are necessary to ensure the Reliability Coordinator does not act in a manner that favors one market participant over another.~~

3. Purpose: To establish the 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. Regional Reliability Organizations.~~

~~4.3.4.2. Transmission Operator.~~

~~4.4.4.3. Balancing Authorities~~ Authority

~~4.5.4.4. Generator Operators~~ Operator

~~4.6. Transmission Service Providers.~~

~~4.7. Load-Serving Entities.~~

~~4.8.4.5. Purchasing Selling Entities.~~

4.6. Distribution Provider

~~5. Effective Date:~~

5. Effective Date: The first day of the second calendar quarter beyond the date that this standard is approved by applicable regulatory authorities, or in those jurisdictions where regulatory approval is not required, the standard becomes effective on the first day of the first calendar quarter beyond the date this standard is approved by the NERC Board of Trustees, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

~~R1. Regional Reliability Organization, subregion, or interregional coordinating group shall establish 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.~~

Each Reliability Coordinator shall have the authority to act or direct others to act (which could include issuing Reliability Directives) to prevent identified events or mitigate the magnitude or duration of actual events that result in an Emergency or Adverse Reliability Impact. *[Violation Risk Factor: High][Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

- ~~R2. The Reliability Coordinator shall comply with a regional reliability plan approved by the NERC Operating Committee.~~

Each Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider shall comply with its Reliability Coordinator's direction unless compliance with the direction cannot 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]*

- ~~R3. The Reliability Coordinator shall have clear decision-making authority to act and to direct actions to be taken by Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities within its Reliability Coordinator Area to preserve the integrity and reliability of the Bulk Electric System. These actions shall be taken without delay, but no longer than 30 minutes.~~

Each Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider shall inform its Reliability Coordinator upon recognition of its inability to perform as directed in accordance with Requirement R2. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

- ~~R4. Reliability Coordinators that delegate tasks to other entities shall have formal operating agreements with each entity to which tasks are delegated. The Reliability Coordinator shall verify that all delegated tasks are understood, communicated, and addressed within its Reliability Coordinator Area. All responsibilities for complying with NERC and regional standards applicable to Reliability Coordinators shall remain with the Reliability Coordinator.~~

- ~~R5. The Reliability Coordinator shall list within its reliability plan all entities to which the Reliability Coordinator has delegated required tasks.~~

- ~~R6. The Reliability Coordinator shall verify that all delegated tasks are carried out by NERC-certified Reliability Coordinator operating personnel.~~

- ~~R7. 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.

~~R8. The Reliability Coordinator shall act in the interests of reliability for the overall Reliability Coordinator Area and the Interconnection before the interests of any other entity.~~

C. Measures

~~M1. Each Regional Reliability Organization shall have, and provide upon request, evidence that could include, but is not limited to signed agreements or other equivalent evidence that will be used to confirm that it established 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 as described in Requirement 1.~~

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 had the authority to take action or direct action, which could have included issuing Reliability Directives, to prevent identified events or mitigate the magnitude or duration of actual events that resulted in an Emergency or Adverse Reliability Impact within its Reliability Coordinator Area. (R1.)

~~M2. Each Reliability Coordinator shall have and provide upon request evidence that could which may include, but is not limited to, job descriptions, signed agreements, an authority letter signed by an officer of the company, dated operator logs, dated records, dated and time-stamped voice recordings or other dated transcripts of voice recordings, electronic communications, or equivalent evidencedocumentation, that will be used to confirm that the determine that it had the authority to take action or direct action, which could have included issuing Reliability Coordinator has the authority to act as describedDirectives, to prevent identified events or mitigate the magnitude or duration of actual events that resulted in Requirement 3.~~

M2. Each Transmission Operator, Balancing Authority, Generator Operator, 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, unless the direction could not be physically implemented, or such actions would have violated safety, equipment, regulatory or statutory requirements. In such cases, the Transmission Operator, Balancing Authority, Generator Operator, 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.)

- ~~M3. Thean Emergency or Adverse Reliability Coordinator shall have and provide upon request current formal operating agreements with entities that have been delegated any Reliability Coordinator tasks (Requirement 4 Part 1).~~
- M3. Each Transmission Operator, Balancing Authority, Generator Operator, 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 in accordance with Requirement R2. (R3.)
- ~~M4. The Reliability Coordinator shall have and provide upon request evidence that could include, but is not limited to, job descriptions, signed agreements, records of training sessions, monitoring procedures or other equivalent evidence that will be used to confirm that all delegated tasks are understood, communicated, and addressed Impact within its Reliability Coordinator Area (Requirement 4 Part 2 and Requirement 5). (R1.)~~
- ~~M5. The Reliability Coordinator shall have and provide upon request evidence that could include, but is not limited to, records that show each operating person assigned to perform a Reliability Coordinator delegated task has a NERC Reliability Coordinator certification credential, or equivalent evidence confirming that delegated tasks were carried out by NERC certified Reliability Coordinator operating personnel, as specified in Requirement 6.~~
- ~~M5. Each Transmission Operator, Balancing Authority, Generator Operator, Transmission Service and Distribution Provider, Load Serving Entity, or Purchasing Selling Entity shall have and provide upon request evidence that could 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 other equivalent evidencedocumentation, that will be used to confirmdetermine that it did complycomplied with theits Reliability Coordinator's directivesdirection, unless the direction could not be physically implemented, or if forsuch actions would have violated safety, equipment, regulatory or statutory requirements it could not comply, In such cases, the Transmission Operator, Balancing Authority, Generator Operator, 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.)~~
- ~~M6. Each Transmission Operator, Balancing Authority, Generator Operator, 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 immediately. (of its inability to perform as directed in accordance with Requirement 7) R2. (R3.)~~

D. Compliance

1. Compliance Monitoring Process

~~1.1. Compliance Monitoring Responsibility~~

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

~~Regional Reliability Organizations 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~~

~~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.~~

1.1. Compliance Enforcement Authority

The Regional Entity shall serve as the Compliance Enforcement Authority (CEA) unless the applicable entity is owned, operated, or controlled by the Regional Entity. In such cases, the ERO or a Regional Entity approved by FERC or other applicable governmental authority shall serve as the CEA.

1.2. Compliance Monitoring and Enforcement Processes:

Compliance Audit

Self-Certification

Spot Checking

Compliance Investigation

Self-Reporting

Complaint

1.3. Data Retention

Each Regional Reliability Organization shall have its current, in force document for Measure 1.

~~Each~~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 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 Reliability Coordinator for Requirement R1, Measure M1 shall retain voice recordings for the most recent 90 calendar days or documentation for the most recent 12 calendar months.~~
- ~~• The Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider, shall have its current, in force documents or the latest copy of a record as evidence of compliance to for Requirements R2 and R3 Measures 2 through 6. M2 and M3, shall retain voice recordings for the most recent 90 calendar days or documentation for the most recent 12 calendar months.~~

~~Each Transmission Operator, Generator Operator, If a Reliability Coordinator, Transmission Service Provider, and Load Serving Entity shall keep 90 days of historical data (evidence) for Measure 6.~~

~~If an entity is Operator, Balancing Authority, Generator Operator, or Distribution Provider is found non-compliant the entity, it shall keep information related to the noncompliance non-compliance until found compliant mitigation is complete and approved or for two years plus the current year time specified above, whichever is longer.~~

~~Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor,~~

~~If a Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, or Distribution Provider is found non-compliant, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time specified above, whichever is longer.~~

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

~~The Compliance Monitor Enforcement Authority shall keep the last periodic-audit report records and all requested and submitted subsequent compliance 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	N/A
R2.	N/A	N/A	N/A	The Reliability Coordinator did not comply with the regional reliability plan approved by the NERC Operating Committee.
R3.	N/A	N/A	The Reliability Coordinator cannot demonstrate that it has clear authority to act or direct actions to preserve transmission security and reliability of the Bulk Electric System.	The Reliability Coordinator failed to take or direct action to preserve the reliability and security of the Bulk Electric System within 30 minutes of identifying these actions.
R4.		The Reliability Coordinator has delegated tasks to other entities and had formal operating agreements with each of these entities but could not verify that delegated tasks were understood, communicated, and addressed within its Reliability Coordinator Area.		The Reliability Coordinator has delegated tasks to other entities but failed to have a formal operating agreement delegating tasks to each of these entities.
R5.	5% or less of the delegate entities are not identified in the reliability plan.	More than 5% up to (and including) 10% of the delegate entities are not identified in the reliability plan.	More than 10% up to (and including) 15% of the delegate entities are not identified in the reliability plan.	There is no reliability plan OR More than 15% of the delegate entities are not identified in the reliability plan.
R6.R 1	There is no reliability plan -OR-	The Reliability Coordinator failed to demonstrate that more than 5% up to (and including) 10% of	The Reliability Coordinator failed to demonstrate that more than 10% up to (and including) 15% of	The Reliability Coordinator failed to demonstrate <u>take action or direct actions</u>, to prevent an <u>identified event</u> that more than 15% of its

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R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
	<p>More than 15% of the delegate entities are not identified in the reliability plan. N/A</p>	<p>its delegated tasks were being performed by NERC-certified Reliability Coordinator operating personnel. N/A</p>	<p>its delegated tasks were being performed by NERC-certified Reliability Coordinator Operating personnel. N/A</p>	<p>delegated tasks were being performed by NERC certified resulted in an Emergency or Adverse Reliability Impact.</p> <p><u>OR</u></p> <p>The Reliability Coordinator operating personnel failed to take action or direct actions to mitigate the magnitude or duration of an event that resulted in an Emergency or Adverse Reliability Impact.</p>
<p><u>R8-R2</u></p>	<p>N/A</p>	<p>The responsible entity could not comply with a directive due to qualified reasons (violation of safety, equipment or regulatory or statutory requirements) and did not immediately inform the Reliability Coordinator. N/A</p>	<p>N/A</p>	<p>The responsible entity did not follow the Reliability Coordinator's directive. The Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider did not comply with the Reliability Coordinator's direction, and compliance with the direction could have been physically implemented and such actions would not have violated safety, equipment, regulatory, or statutory requirements.</p>

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
<p>R9. R3</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>The <u>Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider failed to inform its Reliability Coordinator</u> did not act in the interests<u>upon recognition of reliability for the overall Reliability Coordinator Area and the Interconnection before the interests of one or more other entities</u>its inability to perform as directed.</p>

E. Regional ~~Differences~~ 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	November 19, 2006	Changes “Distribution Provider” to “Transmission Service Provider”	Errata
1.1	October 29, 2008	— Removed “Proposed” from effective date; — BOT adopted errata changes; updated version number to “1.1”	Errata
1.1	May 13, 2009 <u>April 4, 2007</u>	FERC Approved <u>by FERC</u> — Effective Date	Revised <u>New</u>
1.1	May 19, 2011	Replaced Levels of Noncompliance with FERC-approved VSLs	VSL Order
2	August 4, 2011 <u>To be determined</u>	Retired Requirement R7 to eliminate redundancy with IRO-014-2, Requirement R1.	Project 2006-06
23	August 4, 2011 <u>TBD</u>	Adopted by Board of Trustees <u>Revised in accordance with SAR for Project 2006-06, Reliability Coordination (RC SDT). Revised the standard and retired six requirements (R1, R2, R4, R5, R6, and R9). Requirement R3 becomes the new R1 and R8 becomes the new R2 and R3.</u>	<u>Project 2006-06</u>