

## 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. The fourth draft of the standards was posted for a comment period with an Initial Ballot that ended on March 7, 2011.

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

The SDT began working on revisions to the standards in August 2007. The current posting is for the recirculation ballot. The initial ballot was conducted as a single vote for a set of standards and their associated implementation plans and definitions. Following the initial ballot the Standards Committee authorized the team to separate the standards and post the standards that have achieved consensus for individual recirculation ballots. This is the fifth posting of this standard.

### Future Development Plan:

Anticipated Actions	Anticipated Date
1. Standards posted for recirculation ballots.	July 2011
2. Standards sent to BOT for approval.	August 2011
3. Standards filed with regulatory authorities.	September 2011

### 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 modified definition:

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

## A. Introduction

1. **Title:** ~~Procedures, Processes, or Plans to Support~~ **Coordination Between**Among Reliability Coordinators
2. **Number:** IRO-014-~~12~~
3. **Purpose:** To ensure that each Reliability Coordinator's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations.
4. **Applicability:**
  - 4.1. Reliability Coordinator
- ~~5. **Effective Date:** ~~November 1, 2006~~~~
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 that is 12 months 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 that is 12 months after Board of Trustees approval.

## B. Requirements

- ~~R1.~~ TheEach Reliability Coordinator shall have Operating Procedures, Operating Processes, or Operating Plans ~~in place~~ for activities that require notification, exchange of information or coordination of actions ~~with one or more that may impact~~ other Reliability ~~Coordinators~~Coordinator Areas to support Interconnection reliability. These Operating Procedures, Processes, or Plans shall ~~address Scenarios that affect other Reliability Coordinator Areas as well as those developed in coordination with other Reliability Coordinators.~~
- ~~R2.~~R1. ~~These Operating Procedures, Processes, or Plans shall~~ collectively address, ~~as a minimum,~~ the following: [Violation Risk Factor: Medium] [Time Horizon: Same Day Operations and Operations Planning]
- 2.1.1.1. Communications and notifications, including the mutually agreed to conditions<sup>+</sup> under which one Reliability Coordinator notifies other Reliability Coordinators; the process to follow in making those notifications; and the data and information to be exchanged with other Reliability Coordinators.
  - 2.2.1.2. Energy and capacity shortages.
  - 2.3.1.3. Planned or unplanned outage information.

---

<sup>+</sup> ~~Examples of conditions when one Reliability Coordinator may need to notify another Reliability Coordinator may include (but aren't limited to) sabotage events, Interconnection Reliability Operating Limit violations, voltage reductions, insufficient resources, arming of special protection systems, etc.~~

~~2.4.1.4. Voltage control~~Control of voltage, including the coordination of reactive resources ~~for voltage control.~~

~~2.5.1.5.~~ Coordination of information exchange to support reliability assessments.

~~2.6.1.6.~~ Authority to act to prevent and mitigate ~~instances of causing~~system conditions which could cause Adverse Reliability Impacts to other Reliability Coordinator Areas.

1.7. Weekly conference calls

**R2.** ~~Each Reliability Coordinator's~~Coordinator shall maintain its Operating Procedure, Process~~Procedures, Operating Processes, or Plan~~Operating Plans identified in Requirement R1 as follows: [Violation Risk Factor: Lower] [Time Horizon: Same Day Operations and Operations Planning]

2.1. Review and update annually with no more that requires 15 months between reviews.

2.2. Obtain written agreement from all of the Reliability Coordinators required to take the indicated action(s) for each update.

2.3. Distribute to all Reliability Coordinators that are required to take the indicated action(s) within 30 days of an update.

**R3.** Each Reliability Coordinator shall make notifications and exchange reliability-related information with other Reliability Coordinators in accordance with the Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1. [Violation Risk Factor: Medium][Time Horizon: Real-time Operations and Operations Planning]

**R4.** Each Reliability Coordinator shall participate in agreed upon conference calls, at least weekly (per Requirement 1, Part 1.7) with other Reliability Coordinators within the same Interconnection. [Violation Risk Factor: Lower][Time Horizon: Real-time Operations]

**R5.** Each Reliability Coordinator, upon identification of an Adverse Reliability Impact, shall notify all other Reliability Coordinators. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same Day Operations and Real-time Operations]

**R6.** During each instance where Reliability Coordinators disagree on the existence of an Adverse Reliability Impact each impacted Reliability Coordinator shall operate as though the problem exists. [Violation Risk Factor: High] [Time Horizon: Operations Planning, Same Day Operations and Real-time Operations]

**R7.** During those instances where Reliability Coordinators disagree on the existence of an Adverse Reliability Impact, the Reliability Coordinator that identified the Adverse Reliability Impact shall develop an action plan to resolve the Adverse Reliability Impact. [Violation Risk Factor: High][Time Horizon: Operations Planning, Same Day Operations and Real-time Operations]

**R8.** During those instances where Reliability Coordinators disagree on the existence of an Adverse Reliability Impact, each Reliability Coordinator shall implement the action plan developed by the Reliability Coordinator that identified the Adverse Reliability

Impact unless such actions would violate safety, equipment, regulatory or statutory requirements. [Violation Risk Factor: High][Time Horizon: Operations Planning, Same Day Operations and Real-time Operations]

### C. Measures

M1. Each Reliability Coordinator shall have available the latest approved documented version of its Operating Procedures, Processes, and Operating Plans that require notifications, information exchange or the coordination of actions among impacted Reliability Coordinators for conditions or activities that impact other Reliability Coordinator Areas. This documentation shall include dated, current in force documentation with the specified elements. (R1)

M1.M2. Each Reliability Coordinator shall have dated evidence that the Operating Procedures, Processes, and Plans that require one or more other Reliability Coordinators to take action (e.g., make notifications, exchange information, or coordinate actions) ~~shall be~~ be:

2.1 Reviewed and updated annually with no more than 15 months between reviews.

1.12.2 Agreed to, in writing, by all the Reliability Coordinators required to take the indicated action(s).

1.22.3 Distributed within 30 days of an update to all Reliability Coordinators that are required to take the indicated action(s).

~~R3. A Reliability Coordinator's Operating Procedures, Processes, or Plans developed to support a Reliability Coordinator to Reliability Coordinator Operating Procedure, Process, or Plan shall include:~~

~~3.1. A reference to the associated Reliability Coordinator to Reliability Coordinator Operating Procedure, Process, or Plan.~~

~~3.2. The agreed-upon actions from the associated Reliability Coordinator to Reliability Coordinator Operating Procedure, Process, or Plan.~~

~~R4. Each of the Operating Procedures, Processes, and Plans addressed in Reliability Standard IRO-014 Requirement 1 and Requirement 3 shall:~~

~~4.1. Include version control number or date.~~

~~4.2. Include a distribution list.~~

~~4.3. Be reviewed, at least once every three years, and updated if needed.~~

### C. Measures

~~M2. The Reliability Coordinator's System Operators shall have available for Real-time use, the latest approved version of Operating Procedures, Processes, or Plans that require notifications, information exchange or the coordination of actions between Reliability Coordinators.~~

~~2.1 These Operating Procedures, Processes, or Plans shall address:~~

~~2.1.1 — Communications and notifications, including the conditions under which one Reliability Coordinator notifies other Reliability Coordinators; the process to follow in making those notifications; and the data and information to be exchanged with other Reliability Coordinators.~~

~~M1.1.2 — Energy and capacity shortages.~~

~~M1.1.3 — Planned or unplanned outage information.~~

~~M1.1.4 — Voltage control, including the coordination of reactive resources for voltage control.~~

~~M1.1.5 — Coordination of information exchange to support reliability assessments.~~

~~M1.1.6 — Authority to act to prevent and mitigate instances of causing Adverse Reliability Impacts to other Reliability Coordinator Areas.~~

~~M3. — The Reliability Coordinator shall have evidence that these Operating Procedures, Processes, or Plans were:~~

~~3.1 — Agreed to by all the Reliability Coordinators required to take the indicated action(s).~~

~~3.2 — Distributed to all Reliability Coordinators that are required to take the indicated action(s).~~

~~M4. — The Reliability Coordinator's Operating Procedures, Processes, or Plans developed (for its System Operators' internal use) to support a Reliability Coordinator to Reliability Coordinator Operating Procedure, Process, or Plan received from another Reliability Coordinator shall:~~

~~4.1 — Be available to the Reliability Coordinator's System Operators for Real-time use;~~

~~4.2 — Include a reference to the associated source document, and~~

~~4.3 — Support the agreed-upon actions from the source document.~~

~~M5. — The Reliability Coordinator's Operating Procedures, Processes, or Plans that addresses Reliability Coordinator to Reliability Coordinator coordination shall each include a version control number or date and a distribution list. The Reliability Coordinator shall have evidence that these Operating Procedures, Processes, or Plans were reviewed within the last three years.~~

~~This evidence may include, but is not limited to dated documentation with confirmation of receipt, dated notice of acceptance or agreement to take specified actions, or dated electronic communications with confirmation of receipt and acceptance or agreement to take specified actions. (R2)~~

~~M3. 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 dated documentation, that will be used to determine that it made notifications and exchanged reliability-related information with~~

impacted Reliability Coordinators in accordance with the Operating Procedures, Processes, or Plans identified in Requirement R1. (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 dated documentation, that will be used to determine that it participated in agreed upon (at least weekly) conference calls with other Reliability Coordinators within the same Interconnection. (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 dated documentation, that will be used to determine that it, upon identification of an Adverse Reliability Impact, notified other Reliability Coordinators. (R5)
- 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 operated under the assumption that the Adverse Reliability Impact existed during each instance where Reliability Coordinators disagreed on the existence of an Adverse Reliability Impact. (R6)
- M7. Each Reliability Coordinator that identified an Adverse Reliability Impact shall have evidence and provide evidence that it developed an action plan during those instances where Reliability Coordinators disagreed on the existence of an Adverse Reliability Impact. This evidence may include, but is not limited to operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent dated documentation. (R7)
- M8. Each impacted 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 dated documentation, that will be used to determine that it implemented the action plan developed by the Reliability Coordinator who has the identified the Adverse Reliability Impact when a Reliability Coordinator has identified an Adverse Reliability Impact and the impacted Reliability Coordinators disagree on an action unless such actions would have violated safety, equipment, or regulatory or statutory requirements. (R8)

## D. Compliance

### 1. Compliance Monitoring Process

#### 1.1. Compliance ~~Monitoring Responsibility~~ Enforcement Authority

##### ~~Regional Reliability Organization~~

The Regional Entity is the Compliance Enforcement Authority except where the Reliability Coordinator works for the Regional Entity. Where the Reliability Coordinator works for the Regional Entity, the Regional Entity will establish an agreement with the ERO or another entity approved by the ERO and FERC (i.e. another Regional Entity), to be responsible for compliance enforcement.

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

~~The Performance Reset Period shall be one calendar year.~~

~~Not Applicable~~

### **1.3. Compliance Monitoring and Enforcement Processes:**

~~Compliance Audit~~

~~Self-Certification~~

~~Spot Checking~~

~~Compliance Violation Investigation~~

~~Self-Reporting~~

~~Complaint~~

#### **1.3.1.4. Data Retention**

~~The Reliability Coordinator shall keep documentation for the prior calendar year and the current calendar year. The Compliance Monitor shall keep data or evidence to show compliance data for a minimum of three years or until the Reliability Coordinator has achieved full compliance, whichever is longer.~~

#### **1.4. Additional Compliance Information**

~~The Reliability Coordinator shall demonstrate compliance through self-certification submitted to as identified below unless directed by its Compliance Monitor annually. The Compliance Monitor shall also use a scheduled on-site review at least once every three years and investigations upon complaint. The Compliance Monitor shall conduct an Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation upon a complaint within 30 days of the alleged infraction's discovery date. The Compliance Monitor shall complete the investigation within 45 days after the start of the investigation. As part of an audit or investigation, the Compliance Monitor shall interview other Reliability Coordinators to identify Operating Procedures, Processes or Plans that were distributed to the Reliability Coordinator being audited to verify that these documents are available for Real-time use by the receiving Reliability Coordinator's System Operators.:~~

- ~~o The Each Reliability Coordinator shall have the following retain its current, in force document and any documents available for inspection during an on-site in force since the last compliance audit or within five business days for Requirements R1, R2, and Measures M1, M2.~~
- ~~o Each Reliability Coordinator shall retain its most recent 12 months of a request as part evidence for Requirement R3, R4, R5 and Measure M3, M4, M5.~~
- ~~o Each Reliability Coordinator shall retain 3 calendar years plus current calendar year of an investigation upon a complaint: evidence for Requirements R6 through R8 and Measures M6 through M8.~~

~~**1.4.1** The latest version of its Operating Procedures, Processes, or Plans that require notification, exchange of-If a Reliability Coordinator is found non-compliant,~~



~~it shall keep information, or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability.~~

~~1.4.2—Evidence of distribution of Operating Procedures, Processes, or Plans.~~

## ~~1.—Levels of Non-Compliance~~

~~1.1. Level 1:—There shall be a level one non-compliance if either of the following conditions is present:~~

~~1.1.1—The latest versions of Operating Procedures, Processes, or Plans (identified through self-certification) that require notification, exchange of information, or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability do not include a version control number or date, and a distribution list.~~

~~1.1.2—The latest versions of Reliability Coordinator internal documents developed to support action(s) required as a result of other Reliability Coordinators do not include both a reference to the source Operating Procedure, Process, or Plan and the agreed-upon actions from the source Operating Procedure, Process, or Plan.~~

~~1.2. Level 2:—There shall be a level two related to the non-compliance if any of the following conditions is present:~~

~~1.2.1—Documents required by this standard were not distributed to all entities on the distribution list.~~

- ~~○ Documents required by this standard were not available until found compliant, or for System Operators' Real-time use period specified above, whichever is longer.~~

~~1.2.2—Documents required by this standard do not address all required topics.~~

~~1.3. Level 3:—Documents required by this standard do not address any of the six required topics in Reliability Standard IRO-014 R1.~~

~~1.4. Level 4:—Not Applicable.~~

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

**2. Violation Severity Levels**

<u>R#</u>	<u>Lower VSL</u>	<u>Moderate VSL</u>	<u>High VSL</u>	<u>Severe VSL</u>
<u>R1</u>	<u>The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, exchange of information or coordination of actions with impacted Reliability Coordinators to support Interconnection reliability but failed to address one of the topical areas identified in Parts 1.1 through 1.7.</u>	<u>The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, exchange of information or coordination of actions with impacted Reliability Coordinators to support Interconnection reliability but failed to address two of the topical areas identified in Parts 1.1 through 1.7.</u>	<u>The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, exchange of information or coordination of actions with impacted Reliability Coordinators to support Interconnection reliability but failed to address three of the topical areas identified in Parts 1.1 through 1.7.</u>	<u>The Reliability Coordinator failed to have Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, exchange of information or coordination of actions with impacted Reliability Coordinators to support Interconnection reliability to address three or more of the topical areas identified in Parts 1.1 through 1.7.</u>
<u>R2</u>	<u>N/A</u>	<u>The Reliability Coordinator Operating Procedures, Operating Processes, or Operating Plans identified in R1 but failed to distribute these to all Reliability Coordinators that are required to take action.</u>	<u>The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans identified in R1 but failed to obtain agreement from all Reliability Coordinators that are required to take action.</u>  <u>OR</u> <u>Failed to review and update the Operating Procedures, Operating Processes, and Operating Plans identified in R1 annually.</u>	<u>The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans identified in R1 but failed to review and update annually and obtain written agreement from all Reliability Coordinators that are required to take action and failed to distribute these to all Reliability Coordinators that are required to take action.</u>
<u>R3</u>	<u>N/A</u>	<u>N/A</u>	<u>The Reliability Coordinator failed to make notifications OR exchange reliability-related information with impacted Reliability Coordinators.</u>	<u>The Reliability Coordinator failed to make notifications AND exchange reliability-related information with impacted Reliability Coordinators.</u>

<u>R#</u>	<u>Lower VSL</u>	<u>Moderate VSL</u>	<u>High VSL</u>	<u>Severe VSL</u>
<u>R4</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Reliability Coordinator failed to participate in an agreed upon (at least weekly) conference call with impacted Reliability Coordinators within the same Interconnection.</u>
<u>R5</u>	<u>N/A</u>	<u>The Reliability Coordinator failed to notify one, but not all, of the impacted Reliability Coordinators upon identification of an Adverse Reliability Impact.</u>	<u>N/A</u>	<u>The Reliability Coordinator failed to notify more than one impacted Reliability Coordinators upon identification of an Adverse Reliability Impact.</u>  <u>OR</u> <u>The Reliability Coordinator failed to notify the impacted Reliability Coordinator (when there is only one impacted Reliability Coordinator) upon identification of an Adverse Reliability Impact.</u>
<u>R6</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Reliability Coordinator failed to operate under the assumption that the Adverse Reliability Impact existed during an instance where Reliability Coordinators disagree on the existence of an Adverse Reliability Impact.</u>
<u>R7</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Reliability Coordinator that identified the Adverse Reliability Impact failed to develop an action plan to resolve the Adverse Reliability Impact during an instance where Reliability Coordinators disagreed on the existence of an Adverse Reliability</u>

<u>R#</u>	<u>Lower VSL</u>	<u>Moderate VSL</u>	<u>High VSL</u>	<u>Severe VSL</u>
				<u>Impact.</u>
<u>R8</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Reliability Coordinator failed to implement the action plan developed by the Reliability Coordinator that identified the Adverse Reliability Impact during an instance where Reliability Coordinators disagreed on the existence of an Adverse Reliability Impact.</u>

**E. Regional Differences**

None ~~Identified~~identified.

**F. Associated Documents**

**Version History**

<b>Version</b>	<b>Date</b>	<b>Action</b>	<b>Change Tracking</b>
<del>Version 1</del>	<del>08/August 10/05,</del> <u>2005</u>	<ol style="list-style-type: none"> <li>1. Changed incorrect use of certain hyphens (-) to “en dash (–).”</li> <li>2. Hyphenated “30-day” when used as adjective.</li> <li>3. Changed standard header to be consistent with standard “Title.”</li> <li>4. Initial capped heading “Definitions of Terms Used in Standard.”</li> <li>5. Added “periods” to items where appropriate.</li> <li>6. Changed “Timeframe” to “Time Frame” in item D, 1.2.</li> <li>7. Lower cased all words that are not “defined” terms — drafting team, self-certification.</li> <li>8. Changed apostrophes to “smart” symbols.</li> <li>9. Added comma in all word strings “Procedures, Processes, or Plans,” etc.</li> <li>10. Added hyphens to “Reliability Coordinator-to-Reliability Coordinator” where used as adjective.</li> <li>11. Removed comma in item 2.1.2.</li> <li>12. Removed extra spaces between words where appropriate.</li> </ol>	<del>01/January 20/06,</del> <u>2006</u>
<u>1</u>	<u>February 7, 2006</u>	<u>Approved by BOT</u>	<u>Revised</u>
<u>1</u>	<u>April 4, 2007</u>	<u>Regulatory Approval — Effective Date</u>	<u>New</u>
<u>2</u>	<u>TBD</u>	<u>Revised per Project 2006-6; Revised existing requirements for clarity, retired R3 and R4 and incorporated requirements from IRO-015-1 and IRO-016-1 into this standard.</u>	<u>Revised</u>