

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. RCSDT 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.

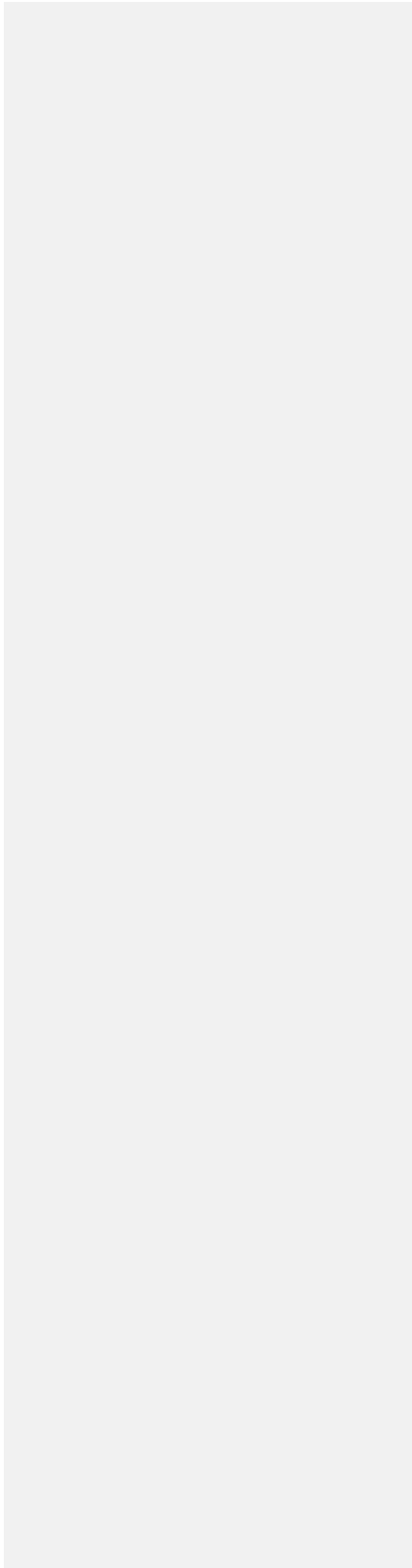
[10. Third posting of revised standards on January 4, 2010 with comment period closed on February 3, 2010.](#)

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 second draft. The team is ~~seeking comments on the revised standards~~ posting for a 30 day pre-ballot review.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Respond to comments on third posting	March 2010
2. Post Standards for pre-ballot period.	April 2010 <u>January 2011</u>
3. Standards posted for initial and recirculation ballots.	May 2010 <u>February 2011</u>
4. Standards sent to BOT for approval.	July 2010 <u>April 2011</u>
5. Standards filed with regulatory authorities.	September 2010 <u>June 2011</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 modifying the following approved 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.

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:

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.

A. Introduction

1. **Title:** Reliability Coordination – Responsibilities and Authorities
2. **Number:** IRO-001-2
3. **Purpose:** To establish ~~requirements for issuance~~ the capability and authority of and compliance with Reliability Coordinator ~~Coordinators to direct other entities to prevent Adverse Reliability Directives or notification within the Reliability Coordinator Area~~ Impacts to the Bulk Electric System.
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.~~
 - ~~4.5. Interchange Coordinators.~~
 - ~~4.7.4.6. Distribution Providers.~~
 - ~~4.8. Purchasing-Selling Entities.~~
 - ~~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 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 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]*
- ~~R1,R2.~~ Each Reliability Coordinator shall ~~act or issue~~ take actions or direct actions, which could include issuing Reliability Directives for actions to be taken by, of Transmission Operators, Balancing Authorities, Generator Operators, ~~Transmission Service Providers, Load Serving Entities, Interchange Coordinators and~~ Distribution Providers ~~and Purchasing-Selling Entities~~ within its Reliability Coordinator Area to prevent identified events or mitigate the magnitude or duration of actual events that result in Adverse Reliability Impacts. *[Violation Risk Factor: High][Time Horizon: Real-time Operations ~~and~~, Same Day Operations and Operations Planning]*
- ~~R2,R3.~~ Each Transmission Operator, Balancing Authority, Generator Operator, ~~Transmission Service Provider, Load Serving Entity, Interchange Coordinator and~~ Distribution Provider, ~~and Purchasing-Selling Entity~~ shall comply with its Reliability Coordinator's Reliability Directives direction per Requirement R2 unless the direction per Requirement R2 can not be implemented or such actions would violate safety, equipment, ~~or~~ regulatory or

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

~~R3,R4.~~ Each Transmission Operator, Balancing Authority, Generator Operator, ~~Transmission Service Provider, Load Serving Entity, Interchange Coordinator and~~ Distribution Provider, ~~and Purchasing Selling Entity~~ shall inform its Reliability Coordinator upon recognition of its inability to perform ~~an issued Reliability Directive as directed per Requirement R3.~~ *[Violation Risk Factor: High] [Time Horizon: Real-time Operations and Same Day Operations and Operations Planning]*

~~R4,R5.~~ Each Reliability Coordinator that identifies an expected or actual ~~threatecondition~~ 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]*

~~R5,R6.~~ Each Reliability Coordinator that identifies an expected or actual ~~threatecondition~~ 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 ~~transmission~~ problem has been mitigated. *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]*

~~R6,R7.~~ Each Reliability Coordinator shall provide its ~~Operating Personnel System Operators~~ with the authority to ~~veto approve, deny or cancel~~ planned outages ~~toof~~ 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]*

Comment [SC1]: These two requirements and associated measures and VSLs are moved to IRO-005-4

Comment [SC2]: These requirements and associated measures and VSLs are moved to IRO-002-2

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.

~~M1-M2.~~ 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 ~~acted, or issued~~ taken action or ~~directed 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)

~~M2-M3.~~ Each Transmission Operator, Balancing Authority, Generator Operator, ~~Transmission Service Provider, Load Serving Entity, Interchange Coordinator and~~ Distribution Provider ~~and Purchasing Selling Entity~~ 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 ~~Reliability Directive direction~~(s) ~~per Requirement R1~~ unless ~~the direction per Requirement R1 could not be implemented or~~ such actions would have violated safety,

equipment, ~~or~~ 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)

~~M3.M4.~~ Each Transmission Operator, Balancing Authority, Generator Operator, ~~Transmission Service Provider, Load Serving Entity, Interchange Coordinator and Distribution Provider or Purchasing Selling Entity~~ 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 ~~that it~~ informed the Reliability Coordinator of its inability to comply with its Reliability Coordinator's issued Reliability Directive(s)-perform as directed per Requirement R1. (R3)

~~M4.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 threatecondition with Adverse Reliability Impacts, within its Reliability Coordinator Area. (R4)

~~M5.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 threatecondition with Adverse Reliability Impacts within its Reliability Coordinator Area had been mitigated. (R5)

~~M6.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 Operating PersonnelSystem Operator with the authority to vetoapprove, 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

1.2. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.3. Data Retention

The Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, Distribution Provider, ~~Transmission Service Provider, Purchasing-Selling Entity or Load-Serving Entity 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 years for Requirement R1 and Measure M1.
- The Reliability Coordinator shall retain its evidence for the most recent 90 days for voice recordings or 12 months for documentation for Requirement R2 and Measure M2.
- The Transmission Operator, Balancing Authority, Generator Operator, Distribution Provider, ~~Transmission Service Provider, Purchasing-Selling Entity or Load-Serving Entity or Interchange Coordinator~~ shall retain its evidence for the most recent 90 days for voice recordings or 12 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 since for the last compliance audit for applicable current year and previous calendar year for Requirements R6 and R7 and Measures M6 and M7.~~
- If a Reliability Coordinator, Transmission Operator, Balancing Authority, Generator Operator, Distribution Provider, ~~Transmission Service Provider, Purchasing-Selling Entity or Load-Serving Entity or Interchange Coordinator~~ 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. Additional Compliance Information

None.

2. Violation Severity Levels

R#	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	N/A	N/A	The Reliability Coordinator failed to act or issue Reliability Directive(s) for actions to be taken to prevent Adverse Reliability Impacts. <u>N/A</u>	The Regional Entity failed to ensure that at least one Reliability Coordinator failed to act or issue Reliability Directive(s) for actions to be taken to mitigate the magnitude or duration of Adverse Reliability Impacts was certified in its region.
R2	N/A	N/A	N/A	The responsible entity did not follow the Reliability Coordinator's Reliability Directive.
R3	N/A	N/A	N/A	The responsible entity failed to inform its Reliability Coordinator upon recognition of the inability to perform the issued Reliability Directive.
R4	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 one, but not all, impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area. <u>N/A</u>	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 two, but not all, impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area. <u>N/A</u>	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 three, but not all, impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area. <u>N/A</u>	The Reliability Coordinator who failed to take action or direct actions, which could have included issuing Reliability Directive(s), for actions to be taken to prevent identified an expected or actual threat with events that resulted in Adverse Reliability Impacts within its. <u>OR</u> The Reliability Coordinator Area failed to issue an alert to any or more than three impacted Transmission Operators and

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R#	Lower VSL	Moderate VSL	High VSL	Severe VSL
				<u>Balancing Authorities in its Reliability Coordinator Area 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 that resulted in Adverse Reliability Impacts.</u>
R5 <u>R3</u>	The Reliability Coordinator failed to notify one, but not all, impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated. <u>N/A</u>	The Reliability Coordinator failed to notify two, but not all, impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated. <u>N/A</u>	The Reliability Coordinator failed to notify three, but not all, impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated. <u>N/A</u>	The Reliability Coordinator failed to notify any or more than three impacted Transmission Operators, Balancing Authorities, when the transmission problem had been mitigated. <u>The responsible entity did not comply with the Reliability Coordinator's direction per Requirement R1.</u>
R6 <u>R4</u>	N/A	N/A	N/A	The responsible entity failed to inform its Reliability Coordinator failed to provide its Operating Personnel with upon recognition of the authority inability to veto planned outages of its own analysis tools perform as directed per Requirement R1.

regional
reliability
plan is a
"how"
document
that shows

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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
2	TBD	Revised per SAR for project 2006-6, reliability Coordination; added VRFs and VSLs as approved from VRF and VSL projects	Revised