Standard Development Timeline

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

SAR posted February 21, 2014 – March 24, 2014

First posting May 19, 2014 – July 2, 2014

Description of Current Draft

This is the ~~first~~second posting of the revised standard under Project 2014-03 Revisions to the TOP/IRO Reliability Standards. The SDT is working under a deadline for filing the revised standards with FERC of January 31, 2015.

Anticipated Actions	Anticipated Date
~~Additional ballot~~	~~August 2014~~
Final ballot	October 2014
BOT	November 2014

Version History

Version	Date	Action	Change Tracking
Version 1	08/10/05	1. Changed incorrect use of certain hyphens (-) to "en dash (–)." 2. Hyphenated "30-day" when used as adjective. 3. Changed standard header to be consistent with standard "Title." 4. Initial capped heading "Definitions of Terms Used in Standard." 5. Added "periods" to items where appropriate. 6. Changed "Timeframe" to "Time Frame" in item D, 1.2. 7. Lower cased all words that are not "defined" terms — drafting team, self-certification. 8. Changed apostrophes to "smart" symbols. 9. Added comma in all word strings "Procedures, Processes, or Plans," etc. 10. Added hyphens to "Reliability Coordinator-to-Reliability Coordinator" where used as adjective. 11. Removed comma in item 2.1.2. 12. Removed extra spaces between words where appropriate.	01/20/06
2		Revised under Project 2006-06	Revised
2	August 4, 2011	Adopted by Board of Trustees	Revised
4	TBD	Revisions under Project 2014-03	Revised
~~3~~	~~August 4, 2011~~	~~Approved by Board of Trustees~~	
~~4~~	~~April 2014~~	~~Revisions per Project 2014-03~~	

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.

There are no new or revised definitions proposed in this standard revision.

A. Introduction

1. **Title:**   Coordination Among Reliability Coordinators

2. **Number:**   IRO-014-3

3. **Purpose:**   To ensure that each Reliability Coordinator's operations are coordinated such that they will not adversely impact other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations.

4. **Applicability:**

    4.1. Reliability Coordinator

5. **Effective Date**

    The standard shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date that the standard is approved by an applicable governmental authority or as otherwise provided for in a jurisdiction where approval by an applicable governmental authority is required for a standard to go into effect. Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date the standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

6. **Background:**

    On April 16, 2013, NERC submitted two petitions requesting Commission approval of TOP and IRO standards. One petition addresses three revised TOP Reliability Standards: TOP-001-2 (Transmission Operations), TOP-002-3 (Operations Planning), TOP-003-2 (Operational Reliability Data), and one Protection Systems (PRC) Reliability Standard, PRC-001-2 (System Protection Coordination) to replace the eight currently-effective TOP standards. The second petition addresses four revised IRO Reliability Standards: IRO-001-3 (Responsibilities and Authorities), IRO-002-3 (Analysis Tools), IRO-005-4 (Current Day Operations), and IRO-014-2 (Coordination Among Reliability Coordinators) to replace six currently-effective IRO standards.

    On November 21, 2013, the Commission issued a NOPR proposing to remand these TOP and IRO Standards, stating that NERC "has removed critical reliability aspects that are included in the currently-effective standards without adequately addressing these aspects in the proposed standards." For example, the Commission cites the fact that the proposed TOP Standards do not require Transmission Operators to plan and operate within all System Operating Limits ("SOLs"), which is a requirement in the currently-effective standards.

    On December 20, 2013, NERC filed a motion requesting that the Commission defer action on the NOPR until January 31, 2015 to provide NERC and the industry the opportunity to thoroughly examine the technical concerns raised in the NOPR and afford time to review the proposed TOP and IRO Standards through the NERC

~~standards development process to ensure that a technically justified set of solutions is in place for reliability. That motion to defer action was granted on January 14, 2014.~~

~~On February 12, 2014, the Standards Committee appointed a Standard Drafting Team to take on the task of revising the aforementioned standards in response to the NOPR issues and the recommendations made by the Independent Expert Review Panel, the IRO FYRT, and the SW Outage Report.~~ See Project 2014-03 project page.

B. Requirements and Measures

> **Rationale for Requirement R1**: Grammatical changes for consistency with defined terms to Requirement R1.
>
> Deletions are due to duplication with proposed IRO-008-2, Requirements R4 and R6 and proposed IRO-010-3.
>
> Other changes are grammatical for clarity.

R1. Each Reliability Coordinator shall have and implement Operating Procedures, Operating Processes, or Operating Plans, for activities that require notification or coordination of actions that may impact ~~other~~adjacent Reliability Coordinator Areas, to support Interconnection reliability. These Operating Procedures, Operating Processes, or Operating Plans shall include, but are not limited to, the following: *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same-Day Operations]*

    1.1. ~~Communications and n~~N Criteria and processes for notifications~~, and the process to follow in making those notifications~~.

    1.2. Energy and capacity shortages.

    1.3. Control of voltage, including the coordination of reactive resources.

    1.4. Exchange of information including planned and unplanned outage information to support its Operational Planning Analyses and Real-time Assessments.

    1.5. ~~Authority to act to prevent and mitigate system conditions which could adversely impact other Reliability Coordinator Areas.~~

    1.6. Provisions for ~~weekly conference calls~~periodic communications to support reliable operations.

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

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

    2.1. Review and update annually with no more than 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.

M2. Each Reliability Coordinator shall have dated evidence that the Operating Procedures, Operating Processes, and Operating Plans that require one or more other Reliability Coordinators to take action were maintained as specified. 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.

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

R4. ~~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, Operating Processes, or Operating Plans identified in Requirement R1.~~

R5. ~~Each Reliability Coordinator shall participate in agreed upon conference calls, at least weekly (per Requirement R1, Part 1.6) with other Reliability Coordinators within the same Interconnection. *[Violation Risk Factor: Lower][Time Horizon: Same-Day Operations]*~~

R6. ~~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.~~

> **Rationale**: Terminology changed from Adverse Reliability Impact to Emergency for consistency amongst standards. Emergency is a more inclusive term.

R7.R3.　　　　Each Reliability Coordinator, upon identification of an expected or actual Emergency in its Reliability Coordinator Area, shall notify other impacted Reliability Coordinators. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same Day Operations, Real-time Operations]*

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, upon identification of an expected or actual Emergency in its Reliability Coordinator Area, notified other impacted Reliability Coordinators.

R8.R4.　　　　Each impacted Reliability Coordinator shall operate as though the problemEmergency exists during each instance where Reliability Coordinators disagree on the existence of an Emergency. *[Violation Risk Factor: High] [Time Horizon: Operations Planning, Same-Day Operations, Real-time Operations]*

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 operated as though an Emergency existed during each instance where Reliability Coordinators disagreed on the existence of an Emergency.

R9.R5.　　　　Each Reliability Coordinator that identified an Emergency in its Reliability Coordinator Area shall develop an action plan to resolve the Emergency during those instances where impacted Reliability Coordinators disagree on the existence of an Emergency. *[Violation Risk Factor: High][Time Horizon: Operations Planning, Same-Day Operations, Real-time Operations]*

M5.　Each Reliability Coordinator that identified an Emergency in its Reliability Coordinator Area shall have evidence that it developed an action plan during those instances where impacted Reliability Coordinators disagreed on the existence of an Emergency. This evidence may include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent dated documentation.

R10.R6.　　　　Each impacted Reliability Coordinator shall implement the action plan developed by the Reliability Coordinator that identified the Emergency during those instances where Reliability Coordinators disagree on the existence of an Emergency, unless such actions would violate safety, equipment, regulatory, or

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

M6. 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 identified the Emergency when Reliability

> **Rationale for Requirement R9**: Language added for consistency with proposed TOP-001-3, Requirement R7.

Coordinators disagree on the existence of an Emergency unless such actions would have violated safety, equipment, regulatory, or statutory requirements.

R9R7. Each Reliability Coordinator shall assist Reliability Coordinators, if requested and able, provided that the requesting entityReliability Coordinator has implemented its emergency procedures, unless such actions cannot be physically be implemented or would violate safety, equipment, regulatory, or statutory requirements. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations]*

M7. Each Reliability Coordinator shall make available upon request, evidence that requested assistance was provided, if able, to requesting Reliability Coordinators unless such actions could not be physically implemented or would violate safety, equipment, regulatory, or statutory requirements. Such evidence could include, but is not limited to, dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence in electronic or hard copy format. If such a situation has not occurred, the Reliability Coordinator may provide an attestation.

C. Compliance

1. **Compliance Monitoring Process**

    1.1. **Compliance Enforcement Authority**

    As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority" (CEA) means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

    1.2. **Compliance Monitoring and EnforcementAssessment Processes:**

    Compliance Audits

    Self-Certifications

    Spot Checking

    Compliance Violation Investigation

Self-Reporting

Complaints

Exception Reporting

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Assessment Processes" refers to the identification of the processes that will be used to evaluate data or information for the purpose of assessing performance or outcomes with the associated reliability standard.

1.3. Data Retention

The Reliability 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:

o   Each Reliability Coordinator shall retain its current, in force document and any documents in force since the last compliance audit for Requirements R1 and R2, and R9 and Measures M1 and M2, and M9.

o   Each Reliability Coordinator shall retain its most recent 12 months of evidence for Requirements R3, R4, and R5 and Measures M3, M4, and M5.

o   Each Reliability Coordinator shall retain 3 calendar years plus current calendar year of evidence for Requirements R6, R7, and R8 and Measures M6, M7, and M8.

o   Each Reliability Coordinator shall retain evidence for 90-calendar days for operator logs and voice recordings and for the period since the last compliance audit for other evidence for Requirements R7 and R9 and Measures M7 and M9.

If a Reliability Coordinator is found non-compliant, it shall keep information related to the non-compliance until found compliant, or for the time period specified above, whichever is longer.

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

1.4 Additional Compliance Information

None

Table of Compliance Elements

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	**Moderate VSL**	**High VSL**	**Severe VSL**
R1	Operations Planning, Same-Day Operations	Medium	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability but failed to address one of the topical areas identified in Parts 1.1 through 1.~~6~~5.	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability but failed to address two of the topical areas identified in Parts 1.1 through 1.~~6~~5.	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability but failed to address three of the topical areas identified in Parts 1.1 through 1.~~6~~5.	The Reliability Coordinator failed to have Operating Procedures, Operating Processes, or Operating Plans in place for activities that require notification, or coordination of actions with impacted adjacent Reliability Coordinators to support Interconnection reliability. OR, The Reliability Coordinator failed to implement its Operating Procedures, Operating processes, or Operating Plans when activities required notification, or coordination of actions with impacted adjacent Reliability Coordinators to support

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	**Moderate VSL**	**High VSL**	**Severe VSL**
						Interconnection reliability.
R2	Operations Planning, Same-Day Operations	Lower	~~The Reliability Coordinator has the Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 but failed to meet one of the criteria.~~ N/A	The Reliability Coordinator <u>has</u> Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 but failed to meet ~~two~~<u>one</u> of the criteria <u>specified in Requirement R2</u>.	The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 but failed to meet ~~three~~<u>two</u> of the criteria <u>specified in Requirement R2</u>.	~~The Reliability Coordinator does not have Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1.~~ <u>The Reliability Coordinator has Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1 but failed to meet all three of the criteria specified in Requirement R2.</u>
For the Requirement~~s R3 and~~ R5 VSLs only, the intent of the SDT is to start with the Severe VSL first and then to work your way to the left until you find the situation that fits. In this manner, the VSL will not be discriminatory by size. If a Reliability Coordinator has just one affected reliability entity to inform, the intent is that that situation would be a Severe violation.						
R3	~~Operations Planning, Same-Day Operations,~~	~~Medium~~	~~The Reliability Coordinator did not make notifications and exchange reliability-related information with~~	~~The Reliability Coordinator did not make notifications and exchange reliability-related information with~~	~~The Reliability Coordinator did not make notifications and exchange reliability-related information with~~	~~The Reliability Coordinator did not make notifications and exchange reliability-related information with~~

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	**Moderate VSL**	**High VSL**	**Severe VSL**
	~~Real-time Operations~~		~~one impacted Reliability Coordinator in accordance with the Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1.~~	~~two impacted Reliability Coordinators in accordance with the Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1.~~	~~three impacted Reliability Coordinators in accordance with the Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1.~~	~~four or more impacted Reliability Coordinators in accordance with the Operating Procedures, Operating Processes, or Operating Plans identified in Requirement R1.~~
R4	~~Same-Day Operations~~	~~Lower~~	~~N/A~~	~~N/A~~	~~N/A~~	~~The Reliability Coordinator failed to participate in an agreed upon (at least weekly) conference call with other Reliability Coordinators within the same Interconnection.~~
R5	Operations Planning, Same-Day Operations, Real-time Operations	Medium	The Reliability Coordinator did not notify one other impacted Reliability Coordinator upon identification of an expected or actual Emergency in its Reliability Coordinator Area.	The Reliability Coordinator did not notify two other impacted Reliability Coordinators upon identification of an expected or actual Emergency in its Reliability Coordinator Area.	The Reliability Coordinator did not notify three other impacted Reliability Coordinators upon identification of an expected or actual Emergency in its Reliability Coordinator Area.	The Reliability Coordinator did not notify four or more other impacted Reliability Coordinators upon identification of an expected or actual Emergency in its Reliability Coordinator Area.
R6	Operations Planning,	High	N/A	N/A	N/A	The Reliability Coordinator failed to

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	**Moderate VSL**	**High VSL**	**Severe VSL**
	Same-Day Operations, Real-time Operations					operate as though the ~~problem~~Emergency exist~~s~~ed during an instance where Reliability Coordinators disagreed on the existence of an Emergency.
R7	Operations Planning, Same-Day Operations, Real-time Operations	High	N/A	N/A	N/A	The Reliability Coordinator that identified the Emergency in its Reliability Coordinator Area failed to develop an action plan to resolve the Emergency during an instance where impacted Reliability Coordinators disagreed on the existence of Emergency.
R8	Real-time Operations, Same-Day Operations	High	N/A	N/A	N/A	The impacted Reliability Coordinator failed to implement the action plan developed by the Reliability Coordinator that identified the Emergency during an instance where

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	**Moderate VSL**	**High VSL**	**Severe VSL**
						Reliability Coordinators disagreed on the existence of the Emergency.
R9	Real-time Operations	High	N/A	N/A	N/A	The Reliability Coordinator did not provide assistance to Reliability Coordinators, if requested and able, provided that the requesting entityReliability Coordinator has implemented its emergency procedures, unless such actions could not be physically be implemented or would violate safety, equipment, regulatory, or statutory requirements.

D. Regional Variances

None.

E. Interpretations

None.

F. Associated Documents

~~None.~~

Operating Plan - An Operating Plan includes general Operating Processes and specific Operating Procedures. It may be an overview document which provides a prescription for an Operating Plan for the next-day, or it may be a specific plan to address a specific SOL or IROL exceedance identified in the Operational Planning Analysis (OPA). Consistent with the NERC definition, Operating Plans can be general in nature, or they can be specific plans to address specific reliability issues. The use of the term Operating Plan in the revised TOP/IRO standards allows room for both. An Operating Plan references processes and procedures, including electronic data exchange, which are available to the System Operator on a daily basis to allow the operator to reliably address conditions which may arise throughout the day. It is valid for tomorrow, the day after, and the day after that. Operating Plans should be augmented by temporary operating guides which outline prevention/mitigation plans for specific situations which are identified day-to-day in an OPA or a Real-time Assessment (RTA). As the definition in the Glossary of Terms states, a restoration plan is an example of an Operating Plan. It contains all the overarching principles that the System Operator needs to work his/her way through the restoration process. It is not a specific document written for a specific blackout scenario but rather a collection of tools consisting of processes, procedures, and automated software systems that are available to the operator to use in restoring the system. An Operating Plan can in turn be looked upon in a similar manner. It does not contain a prescription for the specific set-up for tomorrow but contains a treatment of all the processes, procedures, and automated software systems that are at the operator's disposal. The existence of an Operating Plan, however, does not preclude the need for creating specific action plans for specific SOL or IROL exceedances identified in the OPA. When a Reliability Coordinator performs an OPA, the analysis may reveal instances of possible SOL or IROL exceedances for pre- or post-Contingency conditions. In these instances, Reliability Coordinators are expected to ensure that there are plans in place to prevent or mitigate those SOLs or IROLs, should those operating conditions be encountered the next day. The Operating Plan may contain a description of the process by which specific prevention or mitigation plans for day-to-day SOL or IROL exceedances identified in the OPA are handled and communicated. This approach could alleviate any potential administrative burden associated with perceived requirements for continual day-to-day updating of "the Operating Plan document" for compliance purposes.