

## 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.

### Description of Current Draft

This version of Reliability Standard IRO-009 is posted for a 45-day concurrent comment and ballot period to address the recommendations of the Project 2012-09 Interconnected Reliability Operations Five-Year Review Team. That review resulted in a recommended drafting effort, which is being conducted by the Project 2015-06 Interconnection Reliability Operations and Coordination standard drafting team.

Completed Actions	Date
Standards Committee approved Standard Authorization Request (SAR) for posting	March 11, 2015
SAR posted for comment	March 16 – April 15, 2015

Anticipated Actions	Anticipated Dates
45-day formal or informal comment period with ballot	May – July 2015
Final ballot	July 2015
NERC Board of Trustees (Board) adoption	November 2015

### New or Modified Term(s) Used in NERC Reliability Standards

This section includes all new or modified terms used in the proposed standard that will be included in the *Glossary of Terms Used in NERC Reliability Standards* upon applicable regulatory approval. Terms used in the proposed standard that are already defined and are not being modified can be found in the *Glossary of Terms Used in NERC Reliability Standards*. The new or revised terms listed below will be presented for approval with the proposed standard. Upon Board adoption, this section will be removed.

Term(s): **None.**

The rationale boxes will be moved to the Supplemental Material Section of the standard after the standard is adopted by the Board.

## A. Introduction

1. **Title:** Reliability Coordinator Actions to Operate Within IROLs
2. **Number:** IRO-009-~~12~~
3. **Purpose:** To prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection by ensuring prompt action to prevent or mitigate instances of exceeding Interconnection Reliability Operating Limits (IROLs).
4. **Applicability:**
  - 4.1. Reliability Coordinator.
5. ~~**Proposed Effective Date:**  
In those jurisdictions where no regulatory approval is required, the standard shall become effective on the latter of either April 1, 2009 or the first day of the first calendar quarter, three months after BOT adoption.  
  
In those jurisdictions where regulatory approval is required, the standard shall become effective on the latter of either April 1, 2009 or the first day of the first calendar quarter, three months after applicable regulatory approval. See the Implementation Plan for IRO-009-2.~~

## B. Requirements

**Rationale for revisions to Requirements R1:** The standard drafting team (IRO SDT) revised this requirement by combining IRO-009-1 Requirements R1 and R2 to form one requirement with two subparts to make the requirements more concise, as both requirements contained similar language.

- R1.** For each IROL (in its Reliability Coordinator Area) that the Reliability Coordinator identifies one or more days prior to the current day, the Reliability Coordinator shall have one or more Operating Processes, Procedures, or Plans that identify actions ~~it~~ the Reliability Coordinator shall take or actions ~~it~~ the Reliability Coordinator shall direct others to take (up to and including load shedding); ~~that can be implemented in time to prevent exceeding those IROLs.~~ (*Violation Risk Factor: Medium*) (*Time Horizon: Operations Planning or Same Day Operations*)

~~1.1 — That can be implemented in time to prevent the identified IROL exceedance.~~

~~1.1~~

- 1.2 **R2.** — For each IROL (in its Reliability Coordinator Area) that the Reliability Coordinator identifies one or more days prior to the current day, the Reliability Coordinator shall have one or more Operating Processes, Procedures, or Plans that identify actions it shall take or actions it shall direct others to take (up to and including load shedding) ~~it~~ To mitigate the magnitude and duration of ~~exceeding~~ that IROL-IROL exceedance such that the IROL is relieved within the IROL's

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*Tv. (Violation Risk Factor: Medium) (Time Horizon: Operations Planning or Same-Day Operations)*

**Rationale for revisions to new Requirement R2 (previously Requirement R3):** The IRO SDT revised the language of this requirement to improve clarity as well as consistency with similar NERC Board of Trustees (Board) approved standards, such as, TOP standard revisions (TOP-001-3 R14); “IROL exceedance,” “Real Time monitoring,” and “Real Time Assessments.”

**R23.** ~~When an assessment of actual or expected system conditions predicts that an IROL in its Reliability Coordinator Area will be exceeded, the Each~~ Reliability Coordinator shall ~~implement~~ initiate one or more Operating Processes, Procedures, or Plans (not limited to the Operating Processes, Procedures, or Plans developed for Requirements R1) that are intended to prevent ~~exceeding that an IROL exceedance as identified in the Reliability Coordinator’s Real-time monitoring or Real-time Assessment.~~  
*(Violation Risk Factor: High) (Time Horizon: Real-time —Operations)*

**Rationale for revisions to new Requirement R3 (previously Requirement R4):** The IRO SDT removed the term “without delay” from the requirement upon determining that the point of time at which the requirement is triggered is inherent in the requirement itself. The IRO SDT also revised the language of this requirement to improve clarity as well as consistency with similar Board approved standards, such as, TOP standard revisions (TOP-001-3 R14); “IROL exceedance,” “Real Time monitoring,” and “Real Time Assessments.”

**R4R3.** ~~When actual system conditions show that there is an instance of exceeding an IROL in its Reliability Coordinator Area, the Each~~ Reliability Coordinator shall, ~~without delay,~~ act or direct others to act so that to mitigate the magnitude and duration of ~~the instance of exceeding that an IROL exceedance is mitigated~~ within the IROL’s Tv, identified in the Reliability Coordinator’s Real-time monitoring or Real-time Assessment. *(Violation Risk Factor: High-) (Time Horizon: Real—time Operations)*

**Rationale for revisions to Requirement R4 (previously Requirement R5):** The IRO SDT revised the language of this requirement for clarity as well as consistency with similar Board approved standards, such as TOP standard revisions (TOP-001-3 R18). The IRO SDT retained clarifying language to limit applicability to appropriate affected RCs.

~~R45. If unanimity cannot be reached on the value for an IROL or its  $T_v$ , e~~Each Reliability Coordinator ~~that monitors that Facility (or group of Facilities) shall operate to; without delay, use~~ the most limiting IROL and  $T_v$  in instances where there is a difference in an IROL or its  $T_v$  between Reliability Coordinators that are responsible for that Facility (or group of Facilities). ~~conservative of the values (the value with the least impact on reliability) under consideration.~~ (*Violation Risk Factor: High*) (*Time Horizon: Real-time Operations*)

### C. Measures

**M1.** Each Reliability Coordinator shall have, and make available upon request, evidence to confirm that it has Operating Processes, Procedures, or Plans to address both preventing and mitigating the magnitude and duration of IROL exceedances ~~instances of exceeding IROLs~~ in accordance with Requirement R1 ~~and Requirement R2~~. This evidence shall include a list of any IROLs (and each associated  $T_v$ ) identified in advance, along with one or more dated Operating Processes, Procedures, or Plans that that will be used.

**M2.** Each Reliability Coordinator shall have, and make available upon request, evidence to confirm that it initiated one or more Operating Processes, Procedures or Plans (not limited to the Operating Processes, Procedures, or Plans developed for Requirements R1) in accordance with Requirement R2. This evidence could include, but is not limited to, Operating Processes, Procedures, or Plans from Requirement R1, dated operating logs, dated voice recordings, dated transcripts of voice recordings, or other evidence.

**M3.** Each Reliability Coordinator shall have, and make available upon request, evidence to confirm that it acted or directed others to act in accordance with Requirement R3. This evidence could include, but is not limited to, Operating Processes, Procedures, or Plans from Requirement R1, dated operating logs, dated voice recordings, dated transcripts of voice recordings, or other evidence. ~~M2. — Each Reliability Coordinator shall have, and make available upon request, evidence to confirm that it acted or directed others to act in accordance with Requirement R3 and Requirement R4. This evidence could include, but is not limited to, Operating Processes, Procedures, or Plans from Requirement R1, dated operating logs, dated voice recordings, dated transcripts of voice recordings, or other evidence.~~

**M43.** ~~For a situation where Reliability Coordinators disagree on the value of an IROL or its  $T_v$  the~~Each Reliability Coordinator shall have, and make available upon request, evidence to confirm that it operated to the most limiting IROL and  $T_v$  in instances where there was a difference in an IROL or its  $T_v$  ~~used the most conservative of the values under consideration, without delay.~~ Such evidence could include, but is not limited to, dated computer printouts, dated operator logs, dated voice recordings, dated transcripts of voice recordings, or other equivalent evidence in accordance with Requirement R4. ~~(R5)~~

## D. Compliance

### 1. Compliance Monitoring Process

#### 1.1. Compliance Enforcement Authority:

“Compliance Enforcement Authority” means NERC or the Regional Entity, or any entity as otherwise designated by an Applicable Governmental Authority, in their respective roles of monitoring and/or enforcing compliance with mandatory and enforceable Reliability Standards in their respective jurisdictions.

~~For Reliability Coordinators that work for the Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.~~

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

#### 1.1. Evidence Retention:

The following evidence retention period(s) 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 applicable entity 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 shall retain evidence of Requirement R1; Requirement R2; Requirement R3; and Requirement for a rolling 12 months.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records, and all IROL Violation Reports submitted since the last audit.

#### 1.2. Compliance Monitoring and Enforcement Program

As defined in the NERC Rules of Procedure, “Compliance Monitoring and Enforcement Program” 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. Additional Compliance Information

**Exception Reporting:** For each instance of exceeding an IROL for time greater than IROL Tv, the Reliability Coordinator shall submit an IROL Violation Report to its Compliance Enforcement Authority within 30 days of the initiation of the event.

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

~~Not applicable.~~

#### ~~1.3. Compliance Monitoring and Enforcement Processes~~

~~Compliance Audits~~

~~Self-Certifications~~

~~Spot-Checking~~

~~Compliance Violation Investigations~~

~~Self-Reporting~~

Complaints

~~Exception Reporting~~

~~1.4. 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:~~

~~The Reliability Coordinator shall retain evidence of Requirement R1, Requirement R2, and Measure M1, for a rolling 12 months.~~

~~The Reliability Coordinator shall retain evidence of Requirement R3, Requirement R4, Requirement R5, Measure M2, and Measure M3 for a rolling 12 months.~~

~~The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records, and all IROL Violation Reports submitted since the last audit.~~

~~1.5. Additional Compliance Information~~

~~**Exception Reporting:** For each instance of exceeding an IROL for time greater than IROL  $T_v$ , the Reliability Coordinator shall submit an IROL Violation Report to its Compliance Enforcement Authority within 30 days of the initiation of the event.~~



2. Violation Severity Levels

Requirement	Lower	Moderate	High	Severe
<p><b>R1</b></p>				<p><u>An IROL in its Reliability Coordinator Area was identified one or more days in advance and the Reliability Coordinator does not have an Operating Process, Procedure, or Plan that identifies actions to prevent that IROL exceedance (Part 1.1).</u></p> <p style="text-align: center;"><u>OR</u></p> <p><u>An IROL in its Reliability Coordinator Area was identified one or more days in advance and the Reliability Coordinator does not have an Operating Process, Procedure, or Plan that identifies actions to mitigate that IROL exceedance within the IROL’s Tv. (Part 1.2)</u><del>An IROL in its Reliability Coordinator Area was identified one or more days in advance and the</del></p>

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<p><del>R2</del></p>				<p><del>An IROL in its Reliability-Coordinator Area was identified one or more days in advance and the Reliability Coordinator does not have an Operating Process, Procedure, or Plan that identifies actions to mitigate exceeding that IROL within the IROL's Tv. (R2)</del></p>
<p><del>R23</del></p>				<p><del>An assessment of actual or expected system conditions predicted that an IROL in the Reliability Coordinator's Area would be exceeded, but n</del><u>No</u><del> Operating Processes, Procedures, or Plans were implemented_ initiated that were intended to prevent a predicted IROL exceedance as identified in the Reliability Coordinator's Real-time monitoring or Real-time Assessment. (R3)</del></p>

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<p><b>R34</b></p>			<p><del>Actual system conditions showed that there was an instance of exceeding an IROL in its Reliability Coordinator Area, and there was a delay of five minutes or more before acting or directing others to act to mitigate the magnitude and duration of the instance of exceeding that IROL, however the IROL was mitigated within the IROL Tv.</del></p>	<p>Actual system conditions <u>showed that there was an IROL exceedance in its Reliability Coordinator Area, and that the IROL exceedance was not resolved/</u><u>mitigated within the IROL's Tv.</u></p>
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Requirement	Lower	Moderate	High	Severe
			<p><del>_ showed that there was an instance of exceeding an IROL in its Reliability Coordinator Area, and there was a delay of five minutes or more before acting or directing others to act to mitigate the magnitude and duration of the instance of exceeding that IROL, however the IROL was mitigated within the IROL Tv. (R4)</del></p>	<p><del>showed that there was an instance of exceeding an IROL in its Reliability Coordinator Area, and that IROL was not resolved within the IROL's Tv. (R4)</del></p>
<p><b>R45</b></p>	<p>Not applicable.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>	<p><u>The most limiting IROL or its TV was not operated to between Reliability Coordinators that are responsible for the Facility (or group of Facilities) associated with the IROL. There was a disagreement on the value of the IROL or its Tv and the most conservative limit under consideration was not used. (R5)</u></p>

**E. Regional Variances**

None

**F. Associated Documents**

IROL Violation Report

**Version History**

Version	Date	Action	Change Tracking
1	October 17, 2008	Adopted by NERC Board of Trustees	
<del>1</del>	<del>March 17, 2011</del>	<del>Order issued by FERC approving IRO-009-1 (approval effective 5/23/11)</del>	
<del>1</del>	<del>February 28, 2014</del>	<del>Updated VRFs based on June 24, 2013 approval.</del>	
<u>2</u>			<u>Revised to address the recommendations of the Project 2012-09 Interconnected Reliability Operations Five-Year Review Team.</u>

**\* FOR INFORMATIONAL PURPOSES ONLY \***

**Enforcement Dates: Standard IRO-009-1 — Reliability Coordinator Actions to Operate Within IROs**

**United States**

<b>Standard</b>	<b>Requirement</b>	<b>Enforcement Date</b>	<b>Inactive Date</b>
IRO-009-1	All	10/01/2011	