

A. Introduction

1. **Title:** Reliability Coordination — Current Day Operations
2. **Number:** IRO-005-1
3. **Purpose:** The Reliability Coordinator must be continuously aware of conditions within its Reliability Coordinator Area and include this information in its reliability assessments. The Reliability Coordinator must monitor Bulk Electric System parameters that may have significant impacts upon the Reliability Coordinator Area and neighboring Reliability Coordinator Areas.
4. **Applicability:**
 - 4.1. Reliability Coordinators.
 - 4.2. Balancing Authorities.
 - 4.3. Transmission Operators.
 - 4.4. Transmission Service Providers.
 - 4.5. Generator Operators.
 - 4.6. Load-Serving Entities.
 - 4.7. Purchasing-Selling Entities.
5. **Effective Date:** June 4, 2007

The RCSDT is proposing to retire or move all requirements in this standard. This will result in retiring IRO-005-1.

B. Requirements

- ~~R1. Each Reliability Coordinator shall monitor its Reliability Coordinator Area parameters, including but not limited to the following: *[Violation Risk Factor: High]*~~
 - ~~R1.1. Current status of Bulk Electric System elements (transmission or generation including critical auxiliaries such as Automatic Voltage Regulators and Special Protection Systems) and system loading. *[Violation Risk Factor: High]*~~
 - ~~R1.2. Current pre-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate System Operating Limits (SOL) or Interconnection Reliability Operating Limits (IROL) violations, including the plan's viability and scope. *[Violation Risk Factor: High]*~~
 - ~~R1.3. Current post-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan's viability and scope. *[Violation Risk Factor: High]*~~
 - ~~R1.4. System real and reactive reserves (actual versus required). *[Violation Risk Factor: High]*~~

The RC SDT proposes retiring Requirement R1 and its subrequirements. Monitoring capability can be objectively measured and is essential to real-time operations – however real-time monitoring is a supporting activity and is only one of several processes used to support operation within defined parameters. Monitoring capability should be assessed during certification and should not be a requirement.

~~R1.5. Capacity and energy adequacy conditions. [Violation Risk Factor: High]~~

~~R1.6. Current Area Control Error (ACE) for all its Balancing Authorities. [Violation Risk Factor: High]~~

~~R1.7. Current local or Transmission Loading Relief procedures in effect. [Violation Risk Factor: High]~~

~~R1.8. Planned generation dispatches. [Violation Risk Factor: High]~~

~~R1.9. Planned transmission or generation outages. [Violation Risk Factor: High]~~

~~R1.10. Contingency events. [Violation Risk Factor: High]~~

~~R2. Each Reliability Coordinator shall be aware of all Interchange Transactions that wheel through, source, or sink in its Reliability Coordinator Area, and make that Interchange Transaction information available to all Reliability Coordinators in the Interconnection. [Violation Risk Factor: High]~~

This Requirement (R2) is not measurable (aware) and should be retired because it is redundant with INT-005, R1. The Interchange Authority is responsible for making interchange information available to all reliability entities including the Reliability Coordinator.

~~R3. As portions of the transmission system approach or exceed SOLs or IROLs, the Reliability Coordinator shall work with its Transmission Operators and Balancing Authorities to evaluate and assess any additional Interchange Schedules that would violate those limits. If a potential or actual IROL violation cannot be avoided through proactive intervention, the Reliability Coordinator shall initiate control actions or emergency procedures to relieve the violation without delay, and no longer than 30 minutes. The Reliability Coordinator shall ensure all resources, including load shedding, are available to address a potential or actual IROL violation. [Violation Risk Factor: High]~~

This Requirement (R3) is proposed to be retired based on work by the IROL Standards Drafting Team. The RC SDT concurs.

~~R4. Each Reliability Coordinator shall monitor its Balancing Authorities' parameters to ensure that the required amount of operating reserves is provided and available as required to meet the Control Performance Standard (CPS) and Disturbance Control Standard (DCS) requirements. If necessary, the Reliability Coordinator shall direct the Balancing Authorities in the Reliability Coordinator Area to arrange for assistance from neighboring Balancing Authorities. The Reliability Coordinator shall issue Energy Emergency Alerts as needed and at the request of its Balancing Authorities and Load-Serving Entities. [Violation Risk Factor: High]~~

The RC SDT recommends retiring Requirement R4. The BA has its own requirements regarding compliance with CPS and DCS standards as well as requesting emergency assistance. We view these as vestiges of an earlier program that no longer applies given the current mandatory requirements with which the BA must comply.

~~R5. Each Reliability Coordinator shall identify the cause of any potential or actual SOL or IROL violations. The Reliability Coordinator shall initiate the control action or emergency procedure to relieve the potential or actual IROL violation without delay, and no longer than 30 minutes. The Reliability Coordinator shall be able to utilize all resources, including load shedding, to address an IROL violation. [Violation Risk Factor: High]~~

This requirement (R5) is proposed to be retired based on work by the IROL Standards Drafting Team. The RC SDT concurs.

~~R6. Each Reliability Coordinator shall ensure its Transmission Operators and Balancing Authorities are aware of Geo Magnetic Disturbance (GMD) forecast information and assist as needed in the development of any required response plans. [Violation Risk Factor: High]~~

The RC SDT proposes retiring Requirement R6 as it is redundant with proposed IRO-001-2, R11. A GMD is one of the “expected or actual threats with Adverse Reliability Impacts”.

~~R7. The Reliability Coordinator shall disseminate information within its Reliability Coordinator Area, as required. [Violation Risk Factor: High]~~

The RC SDT proposes retiring Requirement R7 as it is too vague and can not be measured.

~~R8. Each Reliability Coordinator shall monitor system frequency and its Balancing Authorities’ performance and direct any necessary rebalancing to return to CPS and DCS compliance. The Transmission Operators and Balancing Authorities shall utilize all resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition. [Violation Risk Factor: High]~~

The RC SDT proposes retiring Requirement R8. The BA has its own requirements regarding compliance with CPS and DCS standards as well as requesting emergency assistance. We view these as vestiges of an earlier program that no longer applies given the current mandatory requirements with which the BA must comply. The second sentence is redundant with EOP-002, R4, R6, R7 and R9. This requirement should be retired.

~~R9. The Reliability Coordinator shall coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations. The Reliability Coordinator shall coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real time and next day reliability analysis time frames. [Violation Risk Factor: High]~~

The RC SDT proposes retiring Requirement R9 as it is redundant with TOP-003 and IRO-004 (all requirements) for next day requirements. The RC has the authority to coordinate pending outages in real-time through IRO-001-2, R1 (proposed). The issue of CPS and DCS is covered in EOP-002-2, R6, R7 and R8.

~~R10. As necessary, the Reliability Coordinator shall assist the Balancing Authorities in its Reliability~~

The RC SDT proposes retiring Requirement R10 as it is redundant with EOP-002, R7.2 and R8.

Coordinator Area in arranging for assistance from neighboring Reliability Coordinator Areas or Balancing Authorities. *[Violation Risk Factor: High]*

~~R11.~~ The Reliability Coordinator shall identify sources of large Area Control Errors that may be contributing to Frequency Error, Time Error, or Inadvertent Interchange and shall discuss corrective actions with the appropriate Balancing Authority. The Reliability Coordinator shall direct its Balancing Authority to comply with CPS and DCS. *[Violation Risk Factor: High]*

The RC SDT proposes retiring Requirement R11 as it is redundant with proposed IRO-001-2 R1 and TOP-006-1, R7.

~~R12.~~ Whenever a Special Protection System that may have an inter Balancing Authority, or inter Transmission Operator impact (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the Reliability Coordinators shall be aware of the impact of the operation of that Special Protection System on inter area flows. The Transmission Operator shall immediately inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected. *[Violation Risk Factor: High]*

The RC SDT proposes retiring Requirement R12 as it is redundant with proposed IRO-010. Also, the scope of project 2007-3 includes enhancing the SPS provisions of TOP-005. IRO-003, R1 indicates that the RC will monitor all items that will impact reliability and SPS's are a part of that.

~~R13.~~ Each Reliability Coordinator shall ensure that all Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities operate to prevent the likelihood that a disturbance, action, or non-action in its Reliability Coordinator Area will result in a SOL or IROL violation in another area of the Interconnection. In instances where there is a difference in derived limits, the Reliability Coordinator and its Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities shall always operate the Bulk Electric System to the most limiting parameter. *[Violation Risk Factor: High]*

The IROL SDT has proposed retiring the first sentence of Requirement R13 as it is redundant with the proposed IRO-009-1. The RC SDT recommends retiring the remaining portion of Requirement R13 as it is a facet of the SOL / IROL methodology required in FAC-010-1, FAC-011-1 and FAC-014-1.

~~R14.~~ Each Reliability Coordinator shall make known to Transmission Service Providers within its Reliability Coordinator Area, SOLs or IROLs within its wide area view. The Transmission Service Providers shall respect these SOLs or IROLs in accordance with filed tariffs and regional Total Transfer Calculation and Available Transfer Calculation processes. *[Violation Risk Factor: High]*

Per the IROL SDT, Requirement R14 is redundant with FAC-014, R5.1 and should be retired. The RC SDT concurs.

~~R15. Each Reliability Coordinator who foresees a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its Reliability Coordinator Area shall issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area without delay. The receiving Reliability Coordinator shall disseminate this information to its impacted Transmission Operators and Balancing Authorities. The Reliability Coordinator shall notify all impacted Transmission Operators, Balancing Authorities, when the transmission problem has been mitigated. [Violation Risk Factor: High]~~

Requirement R15 was moved to the proposed IRO-01-2 and revised. It will be retired from IRO-005.

~~R16. Each Reliability Coordinator shall confirm reliability assessment results and determine the effects within its own and adjacent Reliability Coordinator Areas. The Reliability Coordinator shall discuss options to mitigate potential or actual SOL or IROL violations and take actions as necessary to always act in the best interests of the Interconnection at all times. [Violation Risk Factor: High]~~

Requirement R16 is proposed to be retired based on work by the IROL Standards Drafting Team. The RC SDT concurs.

~~R17. When an IROL or SOL is exceeded, the Reliability Coordinator shall evaluate the local and wide area impacts, both real time and post-contingency, and determine if the actions being taken are appropriate and sufficient to return the system to within IROL in thirty minutes. If the actions being taken are not appropriate or sufficient, the Reliability Coordinator shall direct the Transmission Operator, Balancing Authority, Generator Operator, or Load Serving Entity to return the system to within IROL or SOL. [Violation Risk Factor: High]~~

Requirement R17 is proposed to be retired based on work by the IROL Standards Drafting Team. The RC SDT concurs.

C. Measures

Not specified.

D. Compliance

None.

E. Regional Differences

None identified.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata

Standard IRO-005-1 — Reliability Coordination — Current Day Operations

1	August 28, 2006	Added three items that were inadvertently left out to “Applicability” section: 4.5 Generator Operators. 4.6 Load-Serving Entities. 4.7 Purchasing-Selling Entities.	Errata
1	February 7, 2006	BOT Approval	Revised
1	April 4, 2007	Regulatory Approval — Effective Date	New