

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. SAC approves SAR for posting (March 20, 2002)
2. Drafting Team posts Draft SAR for comment periods (April 2–May 3, 2002) (February 14–March 17, 2003)
3. SAC approves development of standard (May 21, 2003)
4. JIC assigns development of standard to NERC (June 2, 2003)
5. Drafting Team posts Drafts for comment (January 16–March 1, 2004) (June 2–July 2, 2004)

Description of Current Draft:

Draft 3 is posted for industry review in the newly adopted standards format. The drafting team feels that it has reached consensus on this standard based on industry comments received. This draft is being posted for stakeholder review (with the standard’s implementation plan) prior to balloting the standard. Balloting will be deferred until authorized by the SAC.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post final draft of standard for 30-day review prior to 1 st ballot	To be determined
2. First ballot	To be determined
3. Recirculation ballot	To be determined
4. 30-day posting before board adoption	To be determined
5. Board adopts standard	To be determined
6. Effective date	To be determined

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.

Adverse Reliability Impact: The impact of an event that results in frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that affects a widespread area of the Interconnection (From Balance Resources and Demand standard).

Operating Plan: A document that identifies a group of activities that may be used to achieve some goal. An Operating Plan may contain Operating Procedures and Operating Processes. A company-specific system restoration plan that includes an Operating Procedure for black-starting units, Operating Processes for communicating restoration progress with other entities, etc., is an example of an Operating Plan.

Operating Procedure: A document that identifies specific steps or tasks that should be taken by one or more specific operating positions to achieve specific operating goal(s). The steps in an Operating Procedure should be followed in the order in which they are presented, and should be performed by the position(s) identified. A document that lists the specific steps for a system operator to take in removing a specific transmission line from service is an example of an Operating Procedure.

Operating Process: A document that identifies general steps for achieving a generic operating goal. An Operating Process includes steps with options that may be selected depending upon Real-time conditions. A guideline for controlling high voltage is an example of an Operating Process.

Real-time: Present time as opposed to future time (From Interconnection Reliability Operating Limits standard).

Reliability Authority Area: The collection of generation, transmission, and loads within the boundaries of the Reliability Authority. Its boundary coincides with one or more Balancing Authority Areas.

Scenario: Possible event.

A. Introduction

1. **Title:** Procedures, Processes or Plans to Support Coordination Between Reliability Authorities
2. **Number:** TOP-009-1
3. **Purpose:** To ensure that each Reliability Authority's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Authority Areas and to preserve the reliability benefits of interconnected operations.
4. **Applicability**
 - 4.1. Reliability Authority.
5. **Effective Date:** To be determined.

B. Requirements

- R1. The Reliability Authority shall have Operating Procedures, Processes, or Plans in place for activities that require notification, exchange of information, or coordination of actions with one or more other Reliability Authorities to support Interconnection reliability. These Operating Procedures, Processes or Plans shall address Scenarios that affect other Reliability Authority Areas as well as those developed in coordination with other Reliability Authorities.
 - R1.1. These Operating Procedures, Processes or Plans shall collectively address, as a minimum, the following:
 - R1.1.1. Communications and notifications, including the conditions¹ under which one Reliability Authority notifies other Reliability Authorities, the process to follow in making those notifications, and the data and information to be exchanged with other Reliability Authorities.
 - R1.1.2. Energy and capacity shortages.
 - R1.1.3. Planned or unplanned outage information.
 - R1.1.4. Voltage control, including the coordination of reactive resources for voltage control.
 - R1.1.5. Coordination of information exchange to support reliability assessments.
 - R1.1.6. Authority to act to prevent and mitigate instances of causing Adverse Reliability Impacts to other Reliability Authority Areas.
- R2. Each Reliability Authority's Operating Procedure, Process or Plan that requires one or more other Reliability Authorities to take action (e.g. make notifications, exchange information, or coordinate actions) shall be:
 - R2.1. Agreed to by all the Reliability Authorities required to take the indicated action(s).
 - R2.2. Distributed to all Reliability Authorities that are required to take the indicated action(s).

¹ Examples of conditions when one RA may need to notify another RA may include (but aren't limited to) sabotage events, Interconnection Reliability Operating Limit violations, voltage reductions, insufficient resources, arming of special protection systems, etc.

- R3.** A Reliability Authority's Operating Procedures, Processes or Plans developed to support a Reliability Authority to Reliability Authority Operating Procedure, Process or Plan shall include:
 - R3.1.** A reference to the associated Reliability Authority to Reliability Authority Operating Procedure, Process or Plan.
 - R3.2.** The agreed-upon actions from the associated Reliability Authority to Reliability Authority Operating Procedure, Process or Plan.
- R4.** Each of the Operating Procedures, Processes and Plans addressed Requirements R1 and R3 shall:
 - R4.1.** Include version control number or date.
 - R4.2.** Include a distribution list.
 - R4.3.** Be reviewed, at least once every three years, and updated if needed.

C. Measures

- M1.** The Reliability Authority'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 Authorities.
 - M1.1** These Operating Procedures, Processes, or Plans shall address:
 - M1.1.1** Communications and notifications, including the conditions under which one Reliability Authority notifies other Reliability Authorities; the process to follow in making those notifications; and the data and information to be exchanged with other Reliability Authorities.
 - 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 Authority Areas.
 - M1.2** The Reliability Authority shall have evidence that these Operating Procedures, Processes or Plans were:
 - M1.2.1** Agreed to by all the Reliability Authorities required to take the indicated action(s).
 - M1.2.2** Distributed to all Reliability Authorities that are required to take the indicated action(s).
- M2.** The Reliability Authority's Operating Procedures, Processes or Plans developed (for its System Operators' internal use) to support a Reliability Authority to Reliability Authority Operating Procedure, Process, or Plan received from another Reliability Authority shall:
 - M2.1** Be available to the Reliability Authority's System Operators for Real-Time use,
 - M2.2** Include a reference to the associated source document, and
 - M2.3** Support the agreed-upon actions from the source document.

- M3.** The Reliability Authority’s Operating Procedures, Processes or Plans that address Reliability Authority to Reliability Authority coordination shall each include a version control number or date and a distribution list. The Reliability Authority shall have evidence that these Operating Procedures, Processes or Plans were reviewed within the last three years.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Timeframe

The Performance-Reset Period shall be one calendar year.

1.3. Data Retention

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

1.4. Additional Compliance Information

The Reliability Authority shall demonstrate compliance through Self-certification submitted to 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 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 Authorities to identify Operating Procedures, Processes or Plans that were distributed to the Reliability Authority being audited to verify that these documents are available for Real-time use by the receiving Reliability Authority’s System Operators.

The Reliability Authority shall have the following documents available for inspection during an on-site audit or within five business days of a request as part of an investigation upon a complaint:

1.4.1 The latest version of its Operating Procedures, Processes or Plans that require notification, exchange of information or coordination of actions with one or more other Reliability Authorities to support Interconnection reliability.

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

2. Levels of Non-Compliance

2.1. Level 1: There shall be a level one noncompliance if either of the following conditions is present:

2.1.1 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 Authorities to support Interconnection reliability do not include a version control number or date, and a distribution list.

2.1.2 The latest versions of Reliability Authority internal documents developed to support action(s) required as a result of other Reliability Authorities, 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.

- 2.2. **Level 2:** No evidence of distribution.
- 2.3. **Level 3:** Not applicable.
- 2.4. **Level 4:** There shall be a level four non-compliance if either of the following conditions is present:
 - 2.4.1 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 Authorities to support Interconnection reliability were not available for System Operators’ Real-Time use.
 - 2.4.2 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 Authorities to support Interconnection reliability do not address all required topics.

E. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking

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Operating Procedure: A document that identifies specific steps or tasks that should be taken by one or more specific operating positions to achieve specific operating goal(s). The steps in an Operating Procedure should be followed in the order in which they are presented, and should be performed by the position(s) identified. A document that lists the specific steps for a system operator to take in removing a specific transmission line from service is an example of an Operating Procedure.

Operating Process: A document that identifies general steps for achieving a generic operating goal. An Operating Process includes steps with options that may be selected depending upon Real-time conditions. A guideline for controlling high voltage is an example of an Operating Process.

Real-time: Present time as opposed to future time (From Interconnection Reliability Operating Limits standard).

Reliability Authority Area: The collection of generation, transmission, and loads within the boundaries of the Reliability Authority. Its boundary coincides with one or more Balancing Authority Areas.

Scenario: Possible event.

A. Introduction

- 1. Title:** Notifications and Information Exchange Between Reliability Authorities
- 2. Number:** TOP-010-1
- 3. Purpose:** To ensure that each Reliability Authority's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Authority Areas and to preserve the reliability benefits of interconnected operations.
- 4. Applicability**
 - 4.1. Reliability Authorities.**
- 5. Effective Date:** To be determined.

B. Requirements

- R1.** The Reliability Authority shall follow its Operating Procedures, Processes, or Plans for making notifications and exchanging reliability-related information with other Reliability Authorities.
 - R1.1.** The Reliability Authority shall make notifications to other Reliability Authorities of conditions in its Reliability Authority Area that may impact other Reliability Authority Areas.
- R2.** The Reliability Authority shall participate in agreed upon conference calls and other communication forums with adjacent Reliability Authorities.
 - R2.1.** The frequency of these conference calls shall be agreed upon by all involved Reliability Authorities and shall be at least weekly.
- R3.** The Reliability Authority shall provide reliability related information as requested by other Reliability Authorities.

C. Measures

- M1.** The Reliability Authority shall have evidence (such as operator logs or other data sources) it has followed its Operating Procedures, Processes, or Plans for notifying other Reliability Authorities of conditions in its Reliability Authority Area that may impact other Reliability Authority Areas.
- M2.** The Reliability Authority shall have evidence (such as operator logs or other data sources) that it participated in agreed upon (at least weekly) conference calls and other communication forums with adjacent Reliability Authorities.
- M3.** The Reliability Authority shall have evidence (such as operator logs ext or other data sources) identifying other Reliability Authorities that have:
 - M3.1** Notified them of conditions in their area that may impact the questioned Reliability Authority Area.
- M4.** The Reliability Authority shall have evidence that it provided requested reliability related information to other Reliability Authorities.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Timeframe

The Performance-Reset Period shall be one calendar year.

1.3. Data Retention

The Reliability Authority shall keep auditable documentation for a rolling 12 months. The Compliance Monitor shall keep compliance data for a minimum of three years or until the Reliability Authority has achieved full compliance, whichever is longer.

1.4. Additional Compliance Information

The Reliability Authority shall demonstrate compliance through self-certification submitted to 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 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 an investigation, the Compliance Monitor shall interview other Reliability Authorities within the Interconnection and verify that the Reliability Authority being audited or investigated has been making notifications and exchanging reliability related information according to agreed Operating Procedures, Processes, or Plans.

The Reliability Authority shall have the following available for its Compliance Monitor to inspect during a scheduled, on-site review or within five days of a request as part of an investigation upon complaint:

1.4.1 Evidence it has participated in agreed-upon conference calls or other communications forums.

1.4.2 Operating logs or other data sources that document notifications made to other Reliability Authorities.

2. Levels of Non-Compliance

2.1. Level 1: Did not participate in agreed upon (at least weekly) conference calls and other communication forums with adjacent Reliability Authorities.

2.2. Level 2: Did not notify other Reliability Authorities as specified in its Operating Procedures, Processes, or Plans for making notifications but no Adverse Reliability Impacts resulted from the incident.

2.3. Level 3: Did not provide requested reliability related information to other Reliability Authorities.

2.4. Level 4: Did not notify other Reliability Authorities as specified in its Operating Procedures, Processes, or Plans for making notifications and Adverse Reliability Impacts resulted from the incident.

E. Regional Differences

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Reliability Authority Area: The collection of generation, transmission, and loads within the boundaries of the Reliability Authority. Its boundary coincides with one or more Balancing Authority Areas.

Scenario: Possible event.

A. Introduction

1. **Title:** Coordination of Real-Time Activities Between Reliability Authorities
2. **Number:** TOP-011-1
3. **Purpose:** To ensure that each Reliability Authority's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Authority Areas and to preserve the reliability benefits of interconnected operations.
4. **Applicability**
 - 4.1. Reliability Authority.
5. **Effective Date:** To be determined.

B. Requirements

- R1. The Reliability Authority that identifies a potential, expected, or actual problem that requires the actions of one or more other Reliability Authorities shall contact the other Reliability Authority(s) to confirm that there is a problem and then discuss options and decide upon a solution to prevent or resolve the identified problem.
 - R1.1. If the involved Reliability Authorities agree on the problem and the actions to take to prevent or mitigate the system condition each involved Reliability Authority shall implement the agreed-upon solution, and notify the involved Reliability Authorities of the action(s) taken.
 - R1.2. If the involved Reliability Authorities cannot agree on the problem(s) each Reliability Authority shall re-evaluate the causes of the disagreement (bad data, status, study results, tools, etc.).
 - R1.2.1. If time permits, this re-evaluation shall be done before taking corrective actions.
 - R1.2.2. If time does not permit, then each Reliability Authority shall operate as though the problem(s) exist(s) until the conflicting system status is resolved.
 - R1.3. If the involved Reliability Authorities cannot agree on the solution, the more conservative solution shall be implemented.
- R2. The Reliability Authority shall document (via operator logs or other data sources) its actions taken for either the event or for the disagreement on the problem(s), or for both.

C. Measures

- M1. For each event that requires Reliability Authority to Reliability Authority coordination, each involved Reliability Authority shall have evidence (operator logs or other data sources) of the actions taken for either the event or for the disagreement on the problem or for both.

D. Compliance

1. **Compliance Monitoring Process**
 - 1.1. **Compliance Monitoring Responsibility**

Regional Reliability Organization.
 - 1.2. **Compliance Monitoring Period and Reset Timeframe**

The Performance-Reset Period shall be one calendar year.

1.3. Data Retention

The Reliability Authority shall keep auditable evidence for the current and prior calendar years. In addition, entities found non-compliant shall keep information related to the non-compliance until it has been found compliant. The Compliance Monitor shall keep compliance data for a minimum of three years or until the Reliability Authority has achieved full compliance, whichever is longer.

1.4. Additional Compliance Information

The Reliability Authority shall demonstrate compliance through self-certification submitted to its Compliance Monitor annually. The Compliance Monitor shall use a scheduled on-site review at least once every three years. The Compliance Monitor shall conduct an investigation upon a complaint that is received within 30 days of an alleged infraction’s discovery date. The Compliance Monitor shall complete the investigation and report back to all involved Reliability Authorities (the Reliability Authority that complained as well as the Reliability Authority that was investigated) within 45 days after the start of the investigation. As part of an audit or investigation, the Compliance Monitor shall interview other Reliability Authorities within the Interconnection and verify that the Reliability Authority being audited or investigated has been coordinating actions to prevent or resolve potential, expected or actual problems that adversely impact the Interconnection.

The Reliability Authority shall have the following available for its Compliance Monitor to inspect during a scheduled, on-site review or within five working days of a request as part of an investigation upon complaint:

- 1.4.1** Evidence (operator log or other data source) to show coordination with other Reliability Authorities.

2. Levels of Non-Compliance

- 2.1. Level 1:** For potential, actual or expected events which required Reliability Authority to Reliability Authority coordination, the Reliability Authority did coordinate, but did not have evidence that it coordinated with other Reliability Authorities.
- 2.2. Level 2:** Not applicable.
- 2.3. Level 3:** Not applicable.
- 2.4. Level 4:** For potential, actual or expected events which required Reliability Authority to Reliability Authority coordination, the Reliability Authority did not coordinate with other Reliability Authorities.

E. Regional Differences

None Identified

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