

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. SAR version 1 posted on May 15, 2007.
2. SAR version 1 comment period closed on June 13, 2007.
3. SAR version 2 posted on August 7, 2007.
4. SAR version 2 comment period closed on September 7, 2007.
5. SAR approved by SC on November 1, 2007.
6. First posting of revised standards on October 7, 2008.
7. Second posting of revised standards on April 7, 2009.

Proposed Action Plan and Description of Current Draft:

The SDT began meeting in January 2008 following the approval of the SAR by the SC. The schedule shows completion of the project in 4Q09. The current draft is the second posting of the revised standards. As part of the proposed revisions, TOP-004-2, TOP-005-1, TOP-006-1, TOP-007-0, and TOP-008-0, and PER-001-0 will be retired. The requirements in those standards have been eliminated or moved to other standards within this project. Some changes made in this project are dependent on corresponding changes to Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post for ballot.	September 2009
2. Post for re-ballot.	November 2009
3. Submit to BOT.	December 2009

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 of Transmission Operations
2. **Number:** TOP-001-2
3. **Purpose:** To ensure coordination between and among reliability entities for the reliability of the Bulk Electric System (BES).
4. **Applicability**
 - 4.1. Balancing Authorities
 - 4.2. Transmission Operators
 - 4.3. Generator Operators
 - 4.4. Distribution Providers
 - 4.5. Load-Serving Entities
5. **Effective Date:** All requirements become effective the first day of the first calendar quarter twenty-four months following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the requirements become effective the first day of the first calendar quarter twenty-four months following Board of Trustees adoption.

B. Requirements

- R1. Each Balancing Authority, Distribution Provider, Load-Serving Entity, and Generator Operator shall comply with each ~~R~~Reliability ~~d~~Directive issued by the Transmission Operator, unless the respective entity informs the Transmission Operator that such actions would violate safety, equipment, regulatory, or statutory requirements. *[Violation Risk Factor: High] [Time Horizon: Operations Planning, Same-day Operations, Real-Time Operations]*
- R2. Each Transmission Operator shall inform its Reliability Coordinator and ~~affected~~other Transmission Operators known or expected to be affected of actual Emergency and anticipated Emergency conditions. *[Violation Risk Factor: High] [Time Horizon: Same-day Operations, Real-Time Operations]*
- R3. Each Transmission Operator shall render emergency assistance to other Transmission Operators, as requested and available, provided that the requesting entity has implemented its comparable emergency procedures unless such actions would violate safety, equipment, regulatory, or statutory requirements. *[Violation Risk Factor: High] [Time Horizon: Real-Time Operations]*
- R4. Each Transmission Operator and Generator Operator shall coordinate its respective operations known or expected by the Transmission Operator to have a reliability impact on other reliability entities with those entities unless conditions do not permit such coordination. Such operations include, but are not limited to, relay or equipment failures and changes in generation, Transmission, Load, or operating conditions. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same-day Operations, Real-Time Operations]*

- R5. [Each Transmission Operator shall operate within each identified Interconnection Reliability Operating Limit \(IROL\) and its associated IROL T_v. \[Violation Risk Factor: High\] \[Time Horizon: Real-time Operations\]](#)
- R6. [Each Transmission Operator shall inform its Reliability Coordinator of all System Operating Limits \(SOLs\) which, while not IROLs, support its local area reliability. \[Violation Risk Factor: Medium\] \[Time Horizon: Real-Time Operations\]](#)
- R7. Each Transmission Operator shall inform its Reliability Coordinator of actions being taken to return the system to within limits when an IROL_s or SOL_s [as identified in Requirement R6](#), has been exceeded. [Violation Risk Factor: Medium] [Time Horizon: Real-Time Operations]
- R8. ~~The-Each~~ Transmission Operator shall act or direct others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v. [Violation Risk Factor: High] [Time Horizon: Real-time Operations]

C. Measures

- M1. ~~The-Each~~ Balancing Authority, Distribution Provider, Load-Serving Entity, and Generator Operator shall each make available upon request, in accordance with Requirement R1, evidence that it either: (a) complied with each ~~R~~Reliability ~~d~~Directive issued by the Transmission Operator or, (b) informed the Transmission Operator that such actions 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.
- M2. ~~The-Each~~ Transmission Operator shall make available upon request, evidence that it has informed its Reliability Coordinator and affected Transmission Operators of actual [Emergency](#) and anticipated Emergency conditions in accordance with Requirement R2. 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.
- M3. ~~The-Each~~ Transmission Operator shall make available upon request, evidence that requested and available emergency assistance was rendered to other Transmission Operators in accordance with Requirement R3 unless such actions 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.
- M4. ~~The-Each~~ Transmission Operator and Generator Operator shall each make available upon request, evidence that operations were coordinated among impacted reliability entities in accordance with Requirement R4 unless conditions do not permit such coordination. Such evidence could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence.
- M5. [Each Transmission Operator shall make available evidence for any occasion in which it has operated outside an identified Interconnection Reliability Operating Limit \(IROL\)](#)

and its associated IROL T_v as specified in Requirement R5. Such evidence could include but is not limited to dated computer logs or reports in electronic or hard copy format specifying the date, time, duration, and details of the excursion outside of the identified IROL and applicable IROL T_v.

- M6.** ~~The~~Each Transmission Operator shall make available evidence that it has informed its Reliability Coordinator of all SOLs which, while not IROLs, support its local area reliability in accordance with Requirement R6. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, or dated computer printouts.
- M7.** ~~The~~Each Transmission Operator shall make available evidence that it has informed its Reliability Coordinator of actions being taken to return the system to within limits when an IROL_v or SOL as identified in Requirement R6, has been exceeded in accordance with Requirement R57. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, or dated computer printouts.
- M8.** ~~The~~Each Transmission Operator shall make available evidence of when it acted or directed others to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v in accordance with Requirement R68. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, or dated computer printouts.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

Regional Entity

1.2. Compliance Monitoring 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

1.4. Data Retention

~~The~~Each Balancing Authority, Transmission Operator, Distribution Provider, Load-Serving Entity, and Generator Operator shall each keep data or evidence to show compliance for each applicable Requirement R1 through R4 and R6 through R8 and Measure M1 through M4 and M6 through M8 for the current calendar year and one previous calendar year unless directed by its Compliance

Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

~~The~~ Each Transmission Operator shall retain evidence for three calendar years of any occasion in which it has operated outside an identified IROL and its associated IROL T_v as specified in Requirement R5 and Measurement M5.

If a Balancing Authority, Transmission Operator, Distribution Provider, Load-Serving Entity, or Generator Operator 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.

1.5. Additional Compliance Information

None.

2. Violation Severity Levels

	Lower	Moderate	High	Severe
R1	N/A	N/A	N/A	The Balancing Authority, Distribution Provider, Load-Serving Entity, or Generator Operator responsible entity did not comply with a R Reliability d Directive issued by the Transmission Operator, and the respective entity did not inform the Transmission Operator that such action would violate safety, equipment, regulatory, or statutory requirements.
R2	The Transmission Operator did not inform its Reliability Coordinator and one affected <u>other</u> Transmission Operators of <u>an</u> actual <u>Emergency and-or</u> anticipated Emergency conditions on one occasion.	The Transmission Operator did not inform its Reliability Coordinator and two affected <u>other</u> Transmission Operators of <u>an</u> actual <u>Emergency and-or</u> anticipated Emergency conditions on two occasions.	The Transmission Operator did not inform its Reliability Coordinator and three affected <u>other</u> Transmission Operators of <u>an</u> actual <u>Emergency and-or</u> anticipated Emergency conditions on three occasions.	The Transmission Operator did not inform its Reliability Coordinator and affected Transmission Operators of an actual <u>Emergency and-or an</u> anticipated Emergency conditions on four or more occasions. <u>OR</u> <u>The Transmission Operator did not inform four or more other Transmission Operators of an actual Emergency or anticipated Emergency conditions.</u>
R3	N/A	N/A	N/A	The Transmission Operator did not render emergency assistance to other Transmission

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	Lower	Moderate	High	Severe
				Operators, as requested and available, provided that <u>when the requesting entity has had implemented its comparable emergency procedures</u> and such actions would not <u>have violated</u> safety, equipment, regulatory, or statutory requirements.
R4	The Transmission Operator or Generator Operator responsible entity did not coordinate their-its respective operations known or expected <u>by the Transmission Operator</u> to impact other reliability entities with 25% or less of the affected reliability entities unless-when conditions did not permit such coordination.	The Transmission Operator or Generator Operator responsible entity did not coordinate their-its respective operations known or expected <u>by the Transmission Operator</u> to impact other reliability entities with more than 25% or less than or equal to 51% of the affected reliability entities unless-when conditions did not permit such coordination.	The Transmission Operator or Generator Operator responsible entity did not coordinate their-its respective operations known or expected <u>by the Transmission Operator</u> to impact other reliability entities with more than 51% or less than or equal to 715% of the affected reliability entities unless-when conditions did not permit such coordination.	The Transmission Operator or Generator Operator responsible entity did not coordinate their-its respective operations known or expected <u>by the Transmission Operator</u> to impact other reliability entities with more than 715% of the affected entities unless-when conditions did not permit such coordination.
R5	N/A	N/A	N/A	<u>The Transmission Operator did not operate within an identified Interconnection Reliability Operating Limit (IROL) and the associated IROL T_v for any single occasion.</u>
R6	<u>The Transmission Operator did not inform its Reliability Coordinator of one SOL which, while not an IROL, supports its local area reliability.</u>	<u>The Transmission Operator did not inform its Reliability Coordinator of two SOLs which, while not IROLs, supports its local area</u>	<u>The Transmission Operator did not inform its Reliability Coordinator of three SOLs which, while not IROLs, supports its local area</u>	<u>The Transmission Operator did not inform its Reliability Coordinator of four or more SOLs which, while not IROLs, supports its local area</u>

	Lower	Moderate	High	Severe
		<u>reliability.</u>	<u>reliability.</u>	<u>reliability.</u>
R57	The Transmission Operator did not make available evidence that it had informed its Reliability Coordinator of actions being taken to return the system to within limits when an one IROL or SOL (that supports its local area reliability) <u>has been exceeded on one occasion.</u>	The Transmission Operator did not make available evidence that it had informed its Reliability Coordinator of actions being taken to return the system to within limits when an two IROL or SOLs (that support its local area reliability) <u>has have been exceeded on two occasions.</u>	The Transmission Operator did not make available evidence that it had informed its Reliability Coordinator of actions being taken to return the system to within limits when an three IROL or SOLs has (that support its local area reliability) <u>have been exceeded on three occasions.</u>	The Transmission Operator did not make available evidence that it had informed its Reliability Coordinator of actions being taken to return the system to within limits when an IROL or SOL has been exceeded on four or more occasions <u>OR</u> <u>The Transmission Operator did not make available evidence that it had informed its Reliability Coordinator of actions being taken to return the system to within limits when four or more SOLs (that support its local area reliability) have been exceeded.</u>
R68	The Transmission Operator did not make available evidence of its actions or when it directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v on one occasion. <u>N/A</u>	The Transmission Operator did not make available evidence of its actions or when it directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v on two occasions. <u>N/A</u>	The Transmission Operator did not make available evidence of its actions or when it directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v on three occasions. <u>N/A</u>	The Transmission Operator did not make available evidence of its actions or when it directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T _v on four or more occasions.

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
2	TBD	Revisions pursuant to Project 2007-03	Revised