

Deleted: 1
Deleted: Reliability Responsibilities and Authorities

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, 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 Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 2009

Deleted: Adopted by Board of Trustees: November 1, 2006
Deleted: Page
Deleted: of 13

Deleted: 1
Deleted: Reliability Responsibilities and Authorities

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.

Deleted: Adopted by Board of Trustees: November 1, 2006
Deleted: Page
Deleted: of 13

Deleted: 1...Reliability Responsibilities and Authorit ... [1]

A. Introduction

- 1. Title: Coordination of Transmission Operations
- 2. Number: TOP-001-2
- 3. Purpose: To ensure coordination between and among functional 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 will 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.

Deleted: Reliability Responsibilities and Authorities

Deleted: 1

Deleted: reliability ... have clear decision-making authority and capabilities to take appropriate actions or direct the actions of others to return the transmission system to normal conditions during an emergency ... [2]

Deleted:

Deleted: January 1, 2007

Deleted: .

Comment [Edd1]: This statement is not needed in a reliability standard. The standards already require the necessary actions. This statement doesn't really protect the operator.

Comment [Edd2]: Deleted for similar reasoning to R1.

Deleted: <#>Each Transmission Operator shall have the responsibi ... [3]

Deleted: <#>.

Deleted: <#>¶

Deleted: Transmission Operator,

Formatted: Bullets and Numbering

Deleted: <#>.

Deleted: <#>¶

Deleted: <#>Each Transmission ... [4]

Comment [Edd3]: All referen ... [5]

Deleted: by the Reliability Coord ... [6]

Deleted: <#>Each Distribution ... [7]

Deleted: <#>¶

Deleted: any other potentially ... [8]

Comment [Edd4]: Deleted phf ... [9]

Comment [Edd5]: Moved pl ... [10]

Deleted: all available ... provid ... [11]

Deleted: not remove Bulk Elec ... [12]

Comment [Edd6]: The sub- ... [13]

Deleted: <#>For a generator of ... [14]

Comment [Edd7]: Deleted d ... [15]

Deleted: <#>During a system ... [16]

Deleted: <#>.

Deleted: <#>¶

Formatted: Bullets and Numbering

Deleted: Adopted by Board ... [17]

Deleted: Page ... of 13 ... [18]

B. Requirements

- R1. Each Balancing Authority, Distribution Provider, Load-Serving Entity, and Generator Operator shall comply with reliability directives 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 Transmission Operators of Real-Time or anticipated Emergency conditions, including potential impacts caused by disconnections prior to switching. [Violation Risk Factor: High] [Time Horizon: Same-day Operations, Real-Time Operations]
- R3. Each Transmission Operator, Balancing Authority, and Generator Operator shall render emergency assistance to others, as requested and available, 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 to affect other reliability entities with those entities unless System conditions do not permit such coordination. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same-day Operations, Real-Time Operations]
 - R4.1.
- R5. Each Transmission Operator shall inform its Reliability Coordinator when an IROL or SOL has been exceeded and the of actions being taken to return the system to within limits when an

Deleted: 1
Deleted: Reliability Responsibilities and Authorities

IROL or SOL has been exceeded. [Violation Risk Factor: Medium] [Time Horizon: Real-Time Operations]

Comment [Edd8]: This requirement was moved here from TOP-007-0, R1.

R6. The Transmission Operator shall act or direct others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's Tv. [Violation Risk Factor: High] [Time Horizon: Real-time Operations]

Comment [Edd9]: This requirement was moved here from TOP-007-0, R2.

R7. Each Transmission Operator shall operate the Bulk Electric System to the most limiting parameter when there is a difference in derived operating limits amongst reliability entities. [Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]

Comment [Edd10]: Moved from TOP-008, R2.

C. Measures

M1. The 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 reliability directives 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.

Deleted: <#>Each Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, signed agreements, an authority letter signed by an officer of the company, or other equivalent evidence that will be used to confirm that it has the authority, and has exercised the authority, to alleviate operating emergencies as described in Requirement 1.

Formatted: Bullets and Numbering

M2. The Transmission Operator shall make available upon request, evidence that it has informed its Reliability Coordinator and affected Transmission Operators of Real-Time or anticipated Emergency conditions, including potential impacts caused by disconnections prior to switching, 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.

Deleted: <#> ¶

Deleted: <#>If an operating emergency occurs the Transmission Operator that experienced the emergency shall have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it took immediate actions to alleviate the operating emergency including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc. (Requirement 2)

M3. The Transmission Operator, Balancing Authority, and Generator Operator shall each make available upon request, evidence that requested and available emergency assistance was rendered to others 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.

Deleted: <#>¶

M4. The Transmission Operator and Generator Operator shall each make available upon request, evidence that operations were coordinated among affected reliability entities in accordance with Requirement R4 unless System 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.

Deleted: Each Transmission Operator, Balancing Authority, and Generator Operator shall have and provide upon request evidence such as operato... [19]

Deleted:

M5. The 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 or SOL has been exceeded in accordance with Requirement R5. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, or dated computer printouts.

Deleted: <#>Each Balancing Authority, Generator Operator, Distribution... [20]

Deleted: <#>¶

M6. The 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 Tv 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.

Deleted: The Transmission Operator shall have and provide upon req... [21]

Deleted: The Transmission Operator, Balancing Authority, and Genera... [22]

Formatted: Bullets and Numbering

M7. The Transmission Operator shall make available evidence such as dated operator logs, voice recordings or transcripts of voice recordings, or dated computer printouts, of any occasion

Deleted: have and provide

Deleted: <#>¶

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: Page

Deleted: of 13

Deleted: 1
Deleted: Reliability Responsibilities and Authorities

when it operated to a limiting parameter due to differing operating limits amongst reliability entities in accordance with Requirement R7.

Deleted: that will be used to determine if it notified either their Transmission Operator in the case of the Generator Operator, or other Transmission Operators, and the Reliability Coordinator when it removed Bulk Electric System facilities from service if removing those facilities would burden neighboring systems. (Requirement 7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

Regional Entity

Deleted: Monitoring Responsibility

1.2. Compliance Monitoring and Reset Time Frame

Not applicable.

Deleted: Reliability Organizations shall be responsible for compliance monitoring.

1.3. Compliance Monitoring and Enforcement Processes

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

Deleted: One or more of the following methods will be used to assess compliance:
<#>Self-certification (Conducted annually with submission according to schedule.)
<#>Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)
<#>Periodic Audit (Conducted once every three years according to schedule.)
<#>Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)
The Performance-Reset Period shall be 12 months from the last finding of non-compliance.

1.4. Data Retention

The Balancing Authority, Transmission Operator, Distribution Provider, Load-Serving Entity, and Generator Operator shall each 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:

Formatted: Bullets and Numbering

- The Balancing Authority, Distribution Provider, Load-Serving Entity, and Generator Operator shall each retain for the current calendar year and one previous calendar year, in accordance with Requirement R1 and Measurement M1, evidence that it either: (a) complied with reliability directives issued by the Transmission Operator or, (b) informed the Transmission Operator that such actions would violate safety, equipment, regulatory, or statutory requirements.
- The Transmission Operator shall retain evidence for the current calendar year and one previous calendar year that it has informed its Reliability Coordinator and affected Transmission Operators of Real-Time or anticipated Emergency conditions in accordance with Requirement R2 and Measurement M2.
- The Transmission Operator, Balancing Authority, and Generator Operator shall retain evidence for the current calendar year and one previous calendar year that requested and available emergency assistance was rendered to others in accordance with Requirement R3 and Measurement M3 unless such actions would violate safety, equipment, regulatory, or statutory requirements.

Deleted: Each Transmission Operator shall have the current in-force document to show that it has the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area. (Measure 1)
Each Transmission Operator shall keep 90 days of historical data (evidence) for Measures 1 through 7, including evidence of directives issued for Measures 3 and 4.
Each Balancing Authority shall keep 90 days of historical data (evidence) for Measures 3, 4 and 6 including evidence of directives issued for Measures 3 and 4.
Each Generator Operator shall keep 90 days of historical data (evidence) for Measures 3, 4, 6 and 7 including evidence of directives issued for Measures [23]

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: Page

Deleted: of 13

Deleted: 1
 Deleted: Reliability Responsibilities and Authorities

- The Transmission Operator and Generator Operator shall retain evidence for the current calendar year and one previous calendar year that operations known or expected to affect other Reliability Entities were coordinated among affected Reliability Entities in accordance with Requirement R4 and Measurement M4 unless System conditions do not permit such coordination.
- The Transmission Operator shall make available evidence for three calendar years that it has informed its Reliability Coordinator of actions being taken to return the System to within limits when an IROL or SOL has been exceeded in accordance with Requirement R5 and Measurement M5.
- The Transmission Operator shall make available evidence of when it acted, or directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v in accordance with Requirement R6 and Measurement M6.
- The Transmission Operator shall retain evidence for the current calendar year and one previous calendar year of any occasion when it operated to a limiting parameter due to differing operating limits amongst reliability entities in accordance with Requirement R7 and Measurement M7.

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

Deleted: Levels of Non-Compliance for a Balancing Authority:

	<u>Lower</u>	<u>Moderate</u>	<u>High</u>	<u>Severe</u>
<u>R1</u>	<u>The Balancing Authority, Distribution Provider, Load-Serving Entity, or Generator Operator did not comply with reliability directives issued by the Transmission Operator, unless the respective entity informed the Transmission Operator that such</u>	<u>The Balancing Authority, Distribution Provider, Load-Serving Entity, or Generator Operator did not comply with reliability directives issued by the Transmission Operator, unless the respective entity informed the Transmission Operator that such</u>	<u>The Balancing Authority, Distribution Provider, Load-Serving Entity, or Generator Operator did not comply with reliability directives issued by the Transmission Operator, unless the respective entity informed the Transmission Operator that such</u>	<u>The Balancing Authority, Distribution Provider, Load-Serving Entity, or Generator Operator did not comply with reliability directives issued by the Transmission Operator, unless the respective entity informed the Transmission Operator that such</u>

Deleted: Adopted by Board of Trustees: November 1, 2006
 Deleted: Page
 Deleted: of 13

Deleted: 1
 Deleted: Reliability Responsibilities and Authorities

	<u>actions would violate safety, equipment, regulatory, or statutory requirements on one occasion.</u>	<u>actions would violate safety, equipment, regulatory, or statutory requirements on two occasions.</u>	<u>actions would violate safety, equipment, regulatory, or statutory requirements on three occasions.</u>	<u>actions would violate safety, equipment, regulatory, or statutory requirements on four or more occasions.</u>
R2	<u>The Transmission Operator did not inform its Reliability Coordinator and affected Transmission Operators of real-time or Emergency conditions on one occasion.</u>	<u>The Transmission Operator did not inform its Reliability Coordinator and affected Transmission Operators of real-time or Emergency conditions on two occasions.</u>	<u>The Transmission Operator did not inform its Reliability Coordinator and affected Transmission Operators of real-time or Emergency conditions on three occasions.</u>	<u>The Transmission Operator did not inform its Reliability Coordinator and affected Transmission Operators of real-time or Emergency conditions on four or more occasions.</u>
R3	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Transmission Operator, Balancing Authority, or Generator Operator did not render emergency assistance to others, as requested and available, unless such actions would violate safety, equipment, regulatory, or statutory requirements.</u>
R4	<u>The Transmission Operator or Generator Operator did not coordinate their respective operations known or expected to affect other reliability entities with one affected reliability entity or 25% or less of the</u>	<u>The Transmission Operator or Generator Operator did not coordinate their respective operations known or expected to affect other reliability entities with two affected reliability entities or more than 25% or less than or</u>	<u>The Transmission Operator or Generator Operator did not coordinate their respective operations known or expected to affect other reliability entities with three affected reliability entities or more than 50% or less than or</u>	<u>The Transmission Operator or Generator Operator did not coordinate their respective operations known or expected to affect other reliability entities with four or more affected entities or more than 75% of the affected</u>

Deleted: Adopted by Board of Trustees: November 1, 2006
 Deleted: Page
 Deleted: of 13

Deleted: 1
 Deleted: Reliability Responsibilities and Authorities

	<u>affected reliability entities unless System conditions did not permit such coordination.</u>	<u>equal to 50% of the affected reliability entities unless System conditions did not permit such coordination.</u>	<u>equal to 75% of the affected reliability entities unless System conditions did not permit such coordination.</u>	<u>entities unless System conditions did not permit such coordination.</u>
R5	<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 one occasion.</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 an IROL or SOL has been exceeded on two occasions.</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 an IROL or SOL has been exceeded on three occasions.</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 an IROL or SOL has been exceeded on four or more occasions.</u>
R6	<u>The Transmission Operator did not make available evidence of the timing of when it acted, or directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v on one occasion.</u>	<u>The Transmission Operator did not make available evidence of the timing of when it acted, or directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v on two occasions.</u>	<u>The Transmission Operator did not make available evidence of the timing of when it acted, or directed others to act, to mitigate the magnitude and duration of exceeding an IROL within the IROL's T_v on three occasions.</u>	<u>The Transmission Operator did not make available evidence of the timing of when it acted, or 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.</u>
R7	<u>The Transmission Operator did not operate the BES to the most limiting parameter when there was a difference in derived operating limits amongst reliability entities on one occasion.</u>	<u>The Transmission Operator did not operate the BES to the most limiting parameter when there was a difference in derived operating limits amongst reliability entities on two occasions.</u>	<u>The Transmission Operator did not operate the BES to the most limiting parameter when there was a difference in derived operating limits amongst reliability entities on three occasions.</u>	<u>The Transmission Operator did not operate the BES to the most limiting parameter when there was a difference in derived operating limits amongst reliability entities on four or more occasions.</u>

Deleted: Adopted by Board of Trustees: November 1, 2006
 Deleted: Page
 Deleted: of 13

Deleted: 1

Deleted: Reliability Responsibilities and Authorities

E. Regional Variances

None identified.

Deleted: <#>Level 1: Not applicable.¶
 Level 2: Not applicable.¶
 Level 3: Not applicable.¶
 Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation: ¶
 Did not comply with a Reliability Coordinator's or Transmission Operator's reliability directive or did not immediately inform the Reliability Coordinator or Transmission Operator of its inability to perform that directive (R3)¶
 Did not render emergency assistance to others as requested, in accordance with R6.¶
Levels of Non-Compliance for a Transmission Operator:¶
 Level 1: Not applicable.¶
 Level 2: Not applicable. ¶
 Level 3: Not applicable.¶
 Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation: ¶
 Does not have the documented authority to act as specified in R1.¶
 Does not have evidence it acted with the authority specified in R1. ¶
 Did not take immediate actions to alleviate operating emergencies as specified in R2.¶
 Did not comply with its Reliability Coordinator's reliability directive or did not immediately inform the Reliability Coordinator of its inability to perform that directive, as specified in R3.¶
 Did not inform its Reliability Coordinator and other potentially affected Transmission Operators of real time or anticipated emergency conditions as specified in R5.¶
 Did not take actions to avoid, when possible, or to mitigate an emergency as specified in R5.¶
 Did not render emergency assistance to others as requested, as specified in R6.¶
 Removed Bulk Electric System facilities from service under conditions other than those specified in R7.1, 7.2, and 7.3, and removing those facilities burdened a neighbor system.¶
Levels of Non-Compliance for a Generator Operator:¶
 Level 1: Not applicable.¶

... [24]

Formatted: Indent: Left: 0.65"

Formatted: Bullets and Numbering

Deleted: Differences

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
<u>2</u>	<u>TBD</u>	<u>Revisions pursuant to Project 2007-03</u>	<u>Revised</u>

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: Page

Deleted: of 13

Page 1: [1] Deleted Edd 9/25/2008 10:11:00 AM
1

Page 1: [1] Deleted Edd 9/25/2008 10:12:00 AM
Reliability Responsibilities and Authorities

Page 3: [2] Deleted Edd 9/25/2008 10:14:00 AM
reliability

Page 3: [2] Deleted Edd 9/25/2008 10:15:00 AM
have clear decision-making authority and capabilities to take appropriate actions or direct the actions of others to return the transmission system to normal conditions during an emergency

Page 3: [3] Deleted longm 10/6/2008 8:36:00 AM
Each Transmission Operator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area and shall exercise specific authority to alleviate operating emergencies

Page 3: [4] Deleted longm 10/6/2008 8:36:00 AM
Each Transmission Operator shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc

Page 3: [5] Comment [Edd3] Edd 9/25/2008 11:05:00 AM
All references to the RC and RC responsibility have been removed as they are now covered as part of Project 2006-06.

Page 3: [6] Deleted Edd 9/25/2008 10:19:00 AM
by the Reliability Coordinator, and each Balancing Authority and Generator Operator shall comply with reliability directives issued

Page 3: [6] Deleted Edd 9/25/2008 10:20:00 AM
Under these circumstances the Transmission Operator, Balancing Authority or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions.

Page 3: [7] Deleted longm 10/6/2008 8:36:00 AM
Each Distribution Provider and Load Serving Entity shall comply with all reliability directives issued by the Transmission Operator, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances, the Distribution Provider or Load

Serving Entity shall immediately inform the Transmission Operator of the inability to perform the directive so that the Transmission Operator can implement alternate remedial actions.

Page 3: [8] Deleted	Edd	9/25/2008 10:24:00 AM
any other potentially		
Page 3: [8] Deleted	Edd	9/25/2008 10:24:00 AM
r		
Page 3: [8] Deleted	Edd	9/25/2008 10:24:00 AM
t		
Page 3: [8] Deleted	Edd	9/25/2008 10:24:00 AM
e		
Page 3: [8] Deleted	Edd	9/25/2008 10:24:00 AM
and take actions to avoid, when possible, or mitigate the emergency		
Page 3: [9] Comment [Edd4]	Edd	9/25/2008 11:05:00 AM
Deleted phrase due to redundancy with TOP-004-2, R1.		
Page 3: [10] Comment [Edd5]	Edd	9/25/2008 11:05:00 AM
Moved phrase from TOP-008, R3.		
Page 3: [11] Deleted	Edd	9/25/2008 10:27:00 AM
all available		
Page 3: [11] Deleted	Edd	9/25/2008 10:27:00 AM
provided that the requesting entity has implemented its comparable emergency procedures,		
Page 3: [11] Deleted	Edd	9/25/2008 10:27:00 AM
or		
Page 3: [12] Deleted	Edd	9/25/2008 10:28:00 AM
not remove Bulk Electric System facilities from service if removing those facilities would burden neighboring systems unless:		
Page 3: [13] Comment [Edd6]	Edd	9/25/2008 11:05:00 AM
The sub-requirements have been incorporated into the main requirement.		
Page 3: [14] Deleted	Edd	9/25/2008 10:29:00 AM
For a generator outage, the Generator Operator shall notify and coordinate with the Transmission Operator. The Transmission Operator shall notify the		

Reliability Coordinator and other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.

For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.

When time does not permit such notifications and coordination, or when immediate action is required to prevent a hazard to the public, lengthy customer service interruption, or damage to facilities, the Generator Operator shall notify the Transmission Operator, and the Transmission Operator shall notify its Reliability Coordinator and adjacent Transmission Operators, at the earliest possible time.

Page 3: [15] Comment [Edd7] Edd 9/25/2008 11:05:00 AM

Deleted due to redundancy with CPS, DCS, and VAR standards. Deleted requirement for real power as redundant with EOP-002-2, R1 & R6. This is only applicable to the BA. Deleted requirement for reactive as one can't supply emergency reactive assistance remotely.

Page 3: [16] Deleted longm 10/6/2008 8:37:00 AM

During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding

**Page 1: [17] Deleted Edd 9/25/2008 10:12:00 AM
Adopted by Board of Trustees: November 1, 2006**

**Page 1: [18] Deleted longm 10/6/2008 8:02:00 AM
Page**

**Page 1: [18] Deleted longm 10/6/2008 8:02:00 AM
of 13**

Page 4: [19] Deleted Edd 9/25/2008 10:52:00 AM

Each Transmission Operator, Balancing Authority, and Generator Operator shall have and provide upon request evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it complied with its Reliability Coordinator's reliability directives. If the Transmission Operator, Balancing Authority or Generator Operator did not comply with the directive because it would violate safety, equipment, regulatory or statutory requirements, it shall provide evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that it immediately informed the Reliability Coordinator of its inability to perform the directive. (Requirement 3)

Each Balancing Authority, Generator Operator, Distribution Provider and Load Serving Entity shall have and provide upon request evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it complied with its Transmission Operator's reliability directives. If the Balancing Authority, Generator Operator, Distribution Provider and Load Serving Entity did not comply with the directive because it would violate safety, equipment, regulatory or statutory requirements, it shall provide evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that it immediately informed the Transmission Operator of its inability to perform the directive. (Requirements 3 and 4)

The Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it informed its Reliability Coordinator and any other potentially affected Transmission Operators of real time or anticipated emergency conditions, and took actions to avoid, when possible, or to mitigate an emergency. (Requirement 5)

The Transmission Operator, Balancing Authority, and Generator Operator shall each have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it rendered assistance to others as requested, provided that the requesting entity had implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements. (Requirement 6)

Each Transmission Operator shall have the current in-force document to show that it has the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area. (Measure 1)

Each Transmission Operator shall keep 90 days of historical data (evidence) for Measures 1 through 7, including evidence of directives issued for Measures 3 and 4.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measures 3, 4 and 6 including evidence of directives issued for Measures 3 and 4.

Each Generator Operator shall keep 90 days of historical data (evidence) for Measures 3, 4, 6 and 7 including evidence of directives issued for Measures 3 and 4.

Each Distribution Provider and Load-serving Entity shall keep 90 days of historical data (evidence) for Measure 4.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor,

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data

Level 1: Not applicable.

Level 2: Not applicable.

Level 3: Not applicable.

Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

Did not comply with a Reliability Coordinator's or Transmission Operator's reliability directive or did not immediately inform the Reliability Coordinator or Transmission Operator of its inability to perform that directive (R3)

Did not render emergency assistance to others as requested, in accordance with R6.

Levels of Non-Compliance for a Transmission Operator

Level 1: Not applicable.

Level 2: Not applicable.

Level 3: Not applicable.

Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

Does not have the documented authority to act as specified in R1.

Does not have evidence it acted with the authority specified in R1.

Did not take immediate actions to alleviate operating emergencies as specified in R2.

Did not comply with its Reliability Coordinator's reliability directive or did not immediately inform the Reliability Coordinator of its inability to perform that directive, as specified in R3.

Did not inform its Reliability Coordinator and other potentially affected Transmission Operators of real time or anticipated emergency conditions as specified in R5.

Did not take actions to avoid, when possible, or to mitigate an emergency as specified in R5.

Did not render emergency assistance to others as requested, as specified in R6.

Removed Bulk Electric System facilities from service under conditions other than those specified in R7.1, 7.2, and 7.3, and removing those facilities burdened a neighbor system.

Levels of Non-Compliance for a Generator Operator:

Level 1: Not applicable.

Level 2: Not applicable.

Level 3: Not applicable.

Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

Did not comply with a Reliability Coordinator or Transmission Operator's reliability directive or did not immediately inform the Reliability Coordinator or Transmission Operator of its inability to perform that directive, as specified in R3.

Did not render all available emergency assistance to others as requested, unless such actions would violate safety, equipment, or regulatory or statutory requirements as specified in R6.

Removed Bulk Electric System facilities from service under conditions other than those specified in R7.1, 7.2, and 7.3, and burdened a neighbor system.

Levels of Non-Compliance for a Distribution Provider or Load Serving Entity

Level 1: Not applicable.

Level 2: Not applicable.

Level 3: Not applicable

Level 4: Did not comply with a Transmission Operator's reliability directive or immediately inform the Transmission Operator of its inability to perform that directive, as specified in R4.

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, TOP-005-1, TOP-006-1, TOP-007-0, 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 Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 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.

Simulated Contingencies – The act of using planning and operating models to replicate Contingency responses that depict the net effect of design considerations

A. Introduction

- 1. **Title:** Operations Planning
- 2. **Number:** TOP-002-3
- 3. **Purpose:** To ensure that reliability entities have coordinated plans for meeting expected operating conditions.
- 4. **Applicability**
 - 4.1.
 - 4.2. Transmission Operator.
 - 4.3.
 - 4.4.
- 5. **Effective Date:** All requirements will 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. The Transmission Operator shall have an assessment for the next day's operation that indicates whether it will exceed any of its System Operating Limits (SOLs) during anticipated normal conditions and Simulated Contingency events. [Violation Risk Factor: Low] [Time Horizon: Same-day Operations]
- R2. The Transmission Operator shall plan to preclude operating in excess of any Interconnection Reliability Operating Limits (IROLs) including those identified as a result of the assessment performed in Requirement R1. [Violation Risk Factor: High] [Time Horizon: Same-day Operations]
- R3. The Transmission Operator shall notify all reliability entities identified in the plan(s) cited in Requirement R2 as to their role in the plan(s). [Violation Risk Factor: High] [Time Horizon: Same-day Operations]

C. Measures

- M1. The Transmission Operator shall have evidence that it has assessed next day operations in accordance with Requirement R1. Such evidence could include but is not limited to dated operator logs or reports.
- M2. The Transmission Operator shall have evidence that it has planned to preclude operating in excess of the IROLs identified as a result of the assessment performed in Requirement R1 in accordance with Requirement R2. Such evidence could include but it is not limited to plans, processes, or procedures for precluding operating in excess of each IROL.
- M3. The Transmission Operator shall make available evidence that it notified all reliability entities identified in the plan(s) cited in Requirement R2 as to their role in the plan(s)

Deleted: 2... Normal ... [1]
Deleted: Normal
Deleted: 2
Deleted: Current operations plan ... [2]
Deleted: Balancing Authority.
Deleted: Generation Operator.
Deleted: Load Serving Entity.
Deleted: <#>Transmission Serv ... [3]
Deleted:
Formatted: Bullets and Numb ... [4]
Deleted: January 1, 2007
Deleted: Six months after effect ... [5]
Comment [Edd1]: Deleted as ... [6]
Comment [Edd2]: Deleted as ... [7]
Comment [Edd3]: LSE and C ... [8]
Comment [Edd4]: Deleted as ... [9]
Comment [Edd5]: Replaced ... [10]
Comment [Edd6]: BA delet ... [11]
Comment [Edd7]: Deleted a ... [12]
Comment [Edd8]: Delete as ... [13]
Comment [Edd9]: Delete as ... [14]
Comment [Edd10]: Delete ... [15]
Comment [Edd11]: First set ... [16]
Deleted: <#>Each Balancing A ... [17]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Balancing A ... [18]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Load Servir ... [19]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Balancing A ... [20]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Balancing A ... [21]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>E
Deleted: <#>ach Balancing At ... [22]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Balancing A ... [23]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Balancing A ... [24]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Balancing A ... [25]
Deleted: <#>.
Deleted: <#>¶
Deleted: <#>Each Balancing A ... [26]
... [27]
... [28]

Deleted: 2
Deleted: Normal

in accordance with Requirement R3. Such evidence could include but is not limited to dated operator logs, voice recordings, or e-mail records.

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 Transmission Operator 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 Transmission Operator shall retain evidence for a rolling six month period that it has assessed next day operations in accordance with Requirement R1 and Measurement M1.
- The Transmission Operator shall retain evidence for a rolling six month period that it has planned to preclude operating in excess of any IROL identified as a result of the assessment performed in Requirement R1 in accordance with Requirement R2 and Measurement M2.
- The Transmission Operator shall retain evidence for a rolling twelve-month period that it notified all reliability entities identified in the plan(s) cited in Requirement R2 as to their role in the plan(s) in accordance with Requirement R3 and Measurement M3.

If a Transmission 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

Deleted: Monitoring Responsibility
Deleted: Reliability Organizations shall be responsible for compliance monitoring.

Deleted: One or more of the following methods will be used to assess compliance:
<#>Self-certification (Conducted annually with submission according to schedule.)
<#>Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)
<#>Periodic Audit (Conducted once every three years according to schedule.)
<#>Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 calendar days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)
The Performance-Reset Period shall be 12 months from the last finding of non-compliance.

Deleted: For Measures 1 and 2, each Transmission Operator shall have its current plans and a rolling 6 months of historical records (evidence).
For Measures 1, 2, and 3 each Balancing Authority shall have its current plans and a rolling 6 months of historical records (evidence).
For Measure 4, each Transmission Operator shall keep its current plans (evidence).
For Measures 5 and 9, each Transmission Operator shall keep 90 days of historical data (evidence).
For Measures 6, 7 and 8, each Generator Operator shall keep 90 days of historical data (evidence).
For Measure 10, each Balancing Authority, Transmission Operator, Generator Operator, Transmission Service Provider, and Load-serving Entity shall have its current list interconnected transmission facilities and their line identifiers at each end or other equivalent evidence as evidence.
If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.
Evidence used as part of a trigger(... [29]

Deleted: of Non-Compliance for Balancing Authorities:

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: 2
Deleted: Normal

	Lower	Moderate	High	Severe
R1	N/A	N/A	N/A	The Transmission Operator did not perform an assessment for the next day's operation that indicated whether it will exceed any of its SOLs during anticipated normal and Contingency event conditions.
R2	N/A	N/A	N/A	The Transmission Operator did not plan to preclude operating in excess of any IROLs identified as a result of the assessment performed in Requirement R1.
R3	The Transmission Operator did not notify one of the reliability entities or 25% or less of the reliability entities identified in the plan(s) cited as to their role in the plan(s).	The Transmission Operator did not notify two of the reliability entities or more than 25% and less than or equal to 50% of the reliability entities identified in the plan(s) as to their role in the plan(s).	The Transmission Operator did not notify three of the reliability entities or more than 50% and less than or equal to 75% of the reliability entities identified in the plan(s) as to their role in the plan(s).	The Transmission Operator did not notify four or more of the reliability entities or more than 75% of the reliability entities identified in the plan(s) as to their role in the plan(s).

Formatted: Font: (Default) Arial, Font color: White
Formatted: Centered, Space Before: 6 pt
Formatted Table

Deleted: Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18. ¶
Level 2: Not applicable. ¶
Level 3: Not applicable. ¶
Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation: ¶
Did not maintain an updated set of current-day plans as specified in R1. ¶
Plans did not meet one or more of the requirements specified in R5 through R10. ¶
Levels of Non-Compliance for Transmission Operators: ¶
Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18. ¶
Level 2: Not applicable. ¶
Level 3: One or more of Bulk Electric System studies were not made available as specified in R11. ¶
Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation: ¶
Did not maintain an updated set of current-day plans as specified in R1. ¶
Plans did not meet one or more of the requirements in R5, R6, and R10. ¶
Studies not updated to reflect current system conditions as specified in R11. ¶
Did not notify its Balancing Authority and Reliability Coordinator of changes in capabilities and characteristics as specified in R16. ¶
Levels of Non-Compliance for Generator Operators: ¶
Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18. ¶
Level 2: Not applicable. ¶
Level 3: Not applicable. ¶
Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation: [30]

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

Formatted: Indent: Left: 0.25", Hanging: 0.4"

Formatted: Bullets and Numbering

Deleted: Differences

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: 2
Deleted: Normal

1	November 1, 2006	Adopted by Board of Trustees	Revised
<u>2</u>	<u>TBD</u>	<u>Changes pursuant to Project 2007-03</u>	<u>Revised</u>

Deleted: Adopted by Board of Trustees: November 1, 2006

Page 1: [1] Deleted	Edd	9/25/2008 2:25:00 PM
---------------------	-----	----------------------

2

Page 1: [1] Deleted	Edd	9/25/2008 2:25:00 PM
---------------------	-----	----------------------

Normal

Page 3: [2] Deleted	Edd	9/25/2008 2:27:00 PM
---------------------	-----	----------------------

Current operations plans and procedures are essential to being prepared for reliable operations, including response for unplanned events

Page 3: [3] Deleted	longm	10/6/2008 8:54:00 AM
---------------------	-------	----------------------

Transmission Service Provider.

Page 3: [4] Change	longm	10/6/2008 8:42:00 AM
--------------------	-------	----------------------

Formatted Bullets and Numbering

Page 3: [5] Deleted	Edd	9/25/2008 2:28:00 PM
---------------------	-----	----------------------

Six months after effective date of VAR-001-1.

Page 3: [6] Comment [Edd1]	Edd	9/25/2008 2:28:00 PM
----------------------------	-----	----------------------

Deleted as BA only needs to respond to CPS and DCS and thus was not applicable. TOP now covered in new R21 below.

Page 3: [7] Comment [Edd2]	Edd	9/25/2008 2:29:00 PM
----------------------------	-----	----------------------

Deleted as good utility practice and unmeasurable.

Page 3: [8] Comment [Edd3]	Edd	9/25/2008 2:29:00 PM
----------------------------	-----	----------------------

LSE and GOP are governed by their Interconnection Operating Agreement and therefore not necessary here. TSP deleted as not applicable. TOP covered in new R22.

Page 3: [9] Comment [Edd4]	Edd	9/25/2008 2:30:00 PM
----------------------------	-----	----------------------

Deleted as duplicative of proposed IRO-001-2, R1.

Page 3: [10] Comment [Edd5]	Edd	9/25/2008 2:30:00 PM
-----------------------------	-----	----------------------

Replaced with R20.

Page 3: [11] Comment [Edd6]	Edd	9/25/2008 2:31:00 PM
-----------------------------	-----	----------------------

BA deleted as covered in BAL-002-0, R4. TOP covered in new R21.

Page 3: [12] Comment [Edd7]	Edd	9/25/2008 2:31:00 PM
-----------------------------	-----	----------------------

Deleted as duplicative of BAL-002-0, R1.

Page 3: [13] Comment [Edd8]	Edd	9/25/2008 2:32:00 PM
-----------------------------	-----	----------------------

Delete as not applicable to BA.

Page 3: [14] Comment [Edd9] **Edd** **9/25/2008 2:32:00 PM**
Delete as duplicated in BAL-001 and BAL-002

Page 3: [15] Comment [Edd10] **Edd** **9/25/2008 2:32:00 PM**
Delete as not applicable to BA. TOP covered in new R21.

Page 3: [16] Comment [Edd11] **Edd** **9/25/2008 2:33:00 PM**
First sentence covered in new R20. Second sentence covered in proposed IRO-009-1 as well as FAC-010-1, FAC-011-1, and FAC-014-1. Third sentence covered in new R22.

Page 3: [17] Deleted **longm** **10/6/2008 8:47:00 AM**
Each Balancing Authority and Transmission Operator shall maintain a set of current plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period. In addition, each Balancing Authority and Transmission Operator shall be responsible for using available personnel and system equipment to implement these plans to ensure that interconnected system reliability will be maintained

Page 3: [18] Deleted **longm** **10/6/2008 8:47:00 AM**
Each Balancing Authority and Transmission Operator shall ensure its operating personnel participate in the system planning and design study processes, so that these studies contain the operating personnel perspective and system operating personnel are aware of the planning purpose

Page 3: [19] Deleted **longm** **10/6/2008 8:47:00 AM**
Each Load Serving Entity and Generator Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal operations with its Host Balancing Authority and Transmission Service Provider. Each Balancing Authority and Transmission Service Provider shall coordinate its current-day, next-day, and seasonal operations with its Transmission Operator

Page 3: [20] Deleted **longm** **10/6/2008 8:47:00 AM**
Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal planning and operations with neighboring Balancing Authorities and Transmission Operators and with its Reliability Coordinator, so that normal Interconnection operation will proceed in an orderly and consistent manner

Page 3: [21] Deleted **longm** **10/6/2008 8:47:00 AM**
Each Balancing Authority and Transmission Operator shall plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns

Page 3: [22] Deleted **longm** **10/6/2008 8:47:00 AM**

Each Balancing Authority and Transmission Operator shall plan to meet unscheduled changes in system configuration and generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional Reliability Organization, subregional, and local reliability requirements

Page 3: [23] Deleted longm 10/6/2008 8:47:00 AM

Each Balancing Authority shall plan to meet capacity and energy reserve requirements, including the deliverability/capability for any single Contingency

Page 3: [24] Deleted longm 10/6/2008 8:47:00 AM

Each Balancing Authority shall plan to meet voltage and/or reactive limits, including the deliverability/capability for any single contingency

Page 3: [25] Deleted longm 10/6/2008 8:47:00 AM

Each Balancing Authority shall plan to meet Interchange Schedules and ramps

Page 3: [26] Deleted longm 10/6/2008 8:47:00 AM

Each Balancing Authority and Transmission Operator shall plan to meet all System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs)

Page 3: [27] Deleted longm 10/6/2008 8:48:00 AM

The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject confidentiality requirements), and to its Reliability Coordinator

Page 1: [28] Deleted Edd 9/25/2008 2:26:00 PM

Adopted by Board of Trustees: November 1, 2006

Page 4: [29] Deleted Edd 9/25/2008 2:49:00 PM

For Measures 1 and 2, each Transmission Operator shall have its current plans and a rolling 6 months of historical records (evidence).

For Measures 1, 2, and 3 each Balancing Authority shall have its current plans and a rolling 6 months of historical records (evidence).

For Measure 4, each Transmission Operator shall keep its current plans (evidence).

For Measures 5 and 9, each Transmission Operator shall keep 90 days of historical data (evidence).

For Measures 6, 7 and 8, each Generator Operator shall keep 90 days of historical data (evidence).

For Measure 10, each Balancing Authority, Transmission Operator, Generator Operator, Transmission Service Provider, and Load-serving Entity shall have its current list interconnected transmission facilities and their line identifiers at each end or other equivalent evidence as evidence.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor,

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data

Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.

Level 2: Not applicable.

Level 3: Not applicable.

Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

Did not maintain an updated set of current-day plans as specified in R1.

Plans did not meet one or more of the requirements specified in R5 through R10.

Levels of Non-Compliance for Transmission Operators

Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.

Level 2: Not applicable.

Level 3: One or more of Bulk Electric System studies were not made available as specified in R11.

Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

Did not maintain an updated set of current-day plans as specified in R1.

Plans did not meet one or more of the requirements in R5, R6, and R10.

Studies not updated to reflect current system conditions as specified in R11.

Did not notify its Balancing Authority and Reliability Coordinator of changes in capabilities and characteristics as specified in R16.

Levels of Non-Compliance for Generator Operators:

Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.

Level 2: Not applicable.

Level 3: Not applicable.

Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

Did not verify and provide a generating real and reactive capability verification and provide the results to the requesting entity as specified in R13.

Did not notify its Balancing Authority and Transmission Operator of changes in capabilities and characteristics as specified in R14.

Did not provide a forecast of expected real power output to assist in operations planning as specified in R15.

Levels of Non-Compliance for Transmission Service Providers and Load-serving Entities:

Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.

Level 2: Not applicable.

Level 3: Not applicable.

Level 4: Not applicable.

Deleted: 0
Deleted: Planned Outage Coordination

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.

Deleted:

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, TOP-005-1, TOP-006-1, TOP-007-0, 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 Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 2009

Deleted: Adopted by NERC Board of Trustees: February 8, 2005
Deleted: ¶
Formatted: Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

Deleted: 0

Deleted: Planned Outage Coordination

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.

Formatted: Font: Not Bold, Font color: Red

Formatted: Font color: Red

Deleted: Adopted by NERC Board of Trustees: February 8, 2005

Deleted: ¶

Formatted: Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

Deleted: 0
Deleted: Planned Outage Coordination

A. Introduction

- 1. Title: Operational Reliability Data
- 2. Number: TOP-003-1
- 3. Purpose: To ensure that the Transmission Operator and Balancing Authority have the data needed to plan and operate the Transmission system.
- 4. Applicability
 - 4.1. Generator Operators.
 - 4.2. Transmission Operators.
 - 4.3. Balancing Authorities.
 - 4.4. Reliability Coordinators.
 - 4.5. Generator Owners.
 - 4.6. Generator Operators.
 - 4.7. Interchange Authorities.
 - 4.8. Load-Serving Entities.
 - 4.9. Transmission Owners.
- 5. Effective Date: All requirements will 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.

Deleted: Planned Outage Coordination

Deleted: 0

Deleted: Scheduled generator and transmission outages that may affect the reliability of interconnected operations must be planned and coordinated among Balancing Authorities, Transmission Operators, and Reliability Coordinators

Deleted: Generator Operators.

Deleted: Reliability Coordinators.

Deleted: April 1, 2005

Deleted: .

Comment [Edd1]: This requirement is now covered in the re-worded requirements below.

Comment [Edd2]: Deleted as now covered in IRO-001-2, R1 (proposed).

Comment [Edd3]: Deleted as now covered in IRO-001-2, R1 (proposed)

Comment [Edd4]: Deleted as now covered in Project 2006-06.

Deleted: <#>Generator Operators and Transmission Operators shall provide planned outage information

B. Requirements

- R1. Each Transmission Operator and Balancing Authority shall have a documented specification for data to support its Real-time monitoring and reliability assessments. The specification shall include: [Violation Risk Factor: Low] [Time Horizon: Operations Planning]
 - R1.1. A list of required data to be exchanged.
 - R1.2. A mutually agreeable format.
 - R1.3. A timeframe and periodicity for providing data.
- R2. Each Transmission Operator shall distribute its data specification to entities that have Facilities monitored by the Transmission Operator and to entities that provide Facility status to the Transmission Operator. [Violation Risk Factor: Low] [Time Horizon: Operations Planning]
- R3. Each Balancing Authority shall distribute its data specification to entities that provide Facility status to the Balancing Authority. [Violation Risk Factor: Low] [Time Horizon: Operations Planning]
- R4. Each Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-Serving Entity, and Transmission Owner shall provide data, as specified in Requirement R1, to its Transmission Operator(s). [Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same-day Operations, Real-Time Operations]

Deleted: <#>.

Deleted: <#>¶

Deleted: <#>Each Generator Opf ... [1]

Deleted: <#>¶

Deleted: <#>Each Transmission ... [2]

Deleted: <#>¶

Deleted: <#>Such information s ... [3]

Deleted: <#>¶

Deleted: <#>Each Transmission ... [4]

Deleted: <#>.

Deleted: <#>¶

Deleted: <#>Each Transmission ... [5]

Deleted: <#>.

Deleted: <#>¶

Deleted: <#>Each Reliability ... [6]

Deleted: <#>.

Deleted: <#>¶

Deleted: Adopted by NERC F ... [7]

Deleted: ¶

Formatted ... [8]

Deleted: 0
Deleted: Planned Outage Coordination

R5. Each Transmission Operator and Balancing Authority shall provide to other Transmission Operators and Balancing Authorities with immediate responsibility for operational reliability, the data requested by those other Transmission Operators and Balancing Authorities necessary for Real-time monitoring and reliability assessments. [Violation Risk Factor: Low] [Time Horizon: Operations Planning, Same-day Operations, Real-Time Operations]

C. Measures

M1. Each Transmission Operator and Balancing Authority shall make available its dated, current, in force documented specification for data to support its reliability assessments in accordance with Requirement R1.

Deleted: <#>Evidence that the Generator Operator, Transmission Operator, Balancing Authority, and Reliability Coordinator reported and coordinated scheduled outage information as indicated in the requirements above.
Deleted: <#>¶

M2. Each Transmission Operator shall make available evidence that it has distributed its data specification to entities that have Facilities monitored by the Transmission Operator and to entities that provide Facility status to the Transmission Operator in accordance with Requirement R2. Such evidence could include but is not limited to dated operator logs, voice recordings, postal receipts showing the recipient, date and contents, or e-mail records.

M3. Each Balancing Authority shall make available evidence that it has distributed its data specification to entities that provide Facility status to the Balancing Authority in accordance with Requirement R3. Such evidence could include but is not limited to dated operator logs, voice recordings, postal receipts showing the recipient, or e-mail records.

M4. Each Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-Serving Entity, and Transmission Owner shall make available evidence that it has provided data, as specified in Requirement R1, to its Transmission Operator(s) in accordance with Requirement R4. The data is limited to that needed by the Transmission Operator to support Operational Planning Analyses and reliability assessments. Such evidence could include but is not limited to dated operator logs, voice recordings, or e-mail records.

M5. Each Transmission Operator and Balancing Authority shall make available evidence that it has provided to other Transmission Operators and Balancing Authorities with immediate responsibility for operational reliability, the data requested by those entities necessary for reliability assessments and Real-time operation in accordance with Requirement R9. Such evidence could include but is not limited to dated operator logs, voice recordings, or e-mail records.

Deleted: —Page Break—
Deleted: Each Regional Reliability Organization shall conduct a review every three years to ensure that each responsible entity has a process in place to provide planned generator and/or bulk transmission outage information to their Reliability Coordinator, and with neighboring Transmission Operators and Balancing Authorities.¶
Investigation: At the discretion of the Regional Reliability Organization or NERC, an investigation may be initiated to review the planned outage process of a monitored entity due to a complaint of non-compliance by another entity. Notification of an investigation must be made by the Regional Reliability Organization to the entity being investigated as soon as possible, but no later than 60 days after the event. The form and manner of the investigation will be set by NERC and/or the Regional Reliability Organization.

Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Process

Regional Entity

1.2. Compliance Monitoring Period and Reset Timeframe

Not applicable

1.3. Compliance Monitoring and Enforcement Processes

Compliance Audits

Self-Certification

Deleted: Responsibility
Deleted: A Reliability Coordinator makes a request for an outage to "not be taken" because of a reliability impact on the grid and the outage is still taken. The Reliability Coordinator must provide all its documentation within three business days to the Regional Reliability Organization. Each Regional Reliability Organization shall report compliance and violations to NERC via the NERC Compliance Reporting process.

Deleted: One calendar year without a violation from the time of the violation.

Deleted: Adopted by NERC Board of Trustees: February 8, 2005

Deleted: ¶

Formatted: Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

Deleted: 0
Deleted: Planned Outage Coordination

- Spot Checking
- Compliance Violation Investigations
- Self-Reporting
- Complaints

1.4. Data Retention

Each responsible 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:

Deleted: One calendar year.

- Each Transmission Operator and Balancing Authority shall retain their dated, current, in force, documented specification for data to support their reliability assessments in accordance with Requirement R1 and Measurement M1 as well as any documents in force since the last compliance audit.
- Each Transmission Operator shall retain evidence for three calendar years that it has distributed its data specification to entities that have Facilities monitored by the Transmission Operator and to entities that provide Facility status to the Transmission Operator in accordance with Requirement R2 and Measurement M2.
- Each Balancing Authority shall retain evidence for three calendar years that it has distributed its data specification to entities that provide Facility status to the Balancing Authority in accordance with Requirement R3 and Measurement M3.
- Each Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-Serving Entity, and Transmission Owner shall retain evidence for 90 calendar days that it has provided data, as specified in Requirement R1, to its Transmission Operator(s) in accordance with Requirement R4 and Measurement M4.
- Each Transmission Operator and Balancing Authority shall retain evidence for 90 calendar days that it has provided to other Transmission Operators and Balancing Authorities with immediate responsibility for operational reliability, the data requested by those entities necessary for reliability assessments and Real-Time operations in accordance with Requirement R5 and Measurement M5.

If a responsible entity 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

Deleted: Not specified.

Deleted: Adopted by NERC Board of Trustees: February 8, 2005

Deleted: ¶

Formatted: Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

Deleted: 0
 Deleted: Planned Outage Coordination
 Formatted: Width: 11", Height: 8.5"
 Deleted: of Non-Compliance

2. Violation Severity Levels

	<u>Lower</u>	<u>Moderate</u>	<u>High</u>	<u>Severe</u>
<u>R1</u>	<u>The Transmission Operator or Balancing Authority did not have one of the required elements of the documented specification for data to support its real-time monitoring and reliability assessments.</u>	<u>The Transmission Operator or Balancing Authority did not have two of the required elements of the documented specification for data to support its real-time monitoring and reliability assessments.</u>	<u>N/A</u>	<u>The Transmission Operator or Balancing Authority did not have a documented specification for data and information to support its real-time monitoring and reliability assessments.</u>
<u>R2</u>	<u>The Transmission Operator did not distribute its data specification to one entity or 25% or less of the entities that has Facilities monitored by the Transmission Operator or to one entity or 25% or less of the entities that provide Facility status to the Transmission Operator.</u>	<u>The Transmission Operator did not distribute its data specification to two entities or more than 25% and less than or equal to 50% of the entities that have Facilities monitored by the Transmission Operator or to two entities or more than 25% and less than or equal to 50% of the entities that provide Facility status to the Transmission Operator.</u>	<u>The Transmission Operator did not distribute its data specification to three entities or more than 50% and less than or equal to 75% of the entities that have Facilities monitored by the Transmission Operator or to three entities or more than 50% and less than or equal to 75% of the entities that provide Facility status to the Transmission Operator.</u>	<u>The Transmission Operator did not distribute its data specification to four or more entities or more than 75% of the entities that have Facilities monitored by the Transmission Operator or to four or more entities or more than 75% of the entities that provide Facility status to the Transmission Operator.</u>
<u>R3</u>	<u>The Balancing Authority did not distribute its data specification to one entity or 25% or less of the entities that provide Facility status to the Balancing Authority.</u>	<u>The Balancing Authority did not distribute its data specification to two entities or more than 25% and less than or equal to 50% of the entities that provide Facility status to the Balancing Authority.</u>	<u>The Balancing Authority did not distribute its data specification to three entities or more than 50% and less than or equal to 75% of the entities that provide Facility status to the Balancing Authority.</u>	<u>The Balancing Authority did not distribute its data specification to four or more entities or more than 75% of the entities that provide Facility status to the Balancing Authority.</u>
<u>R4</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-Serving Entity, or</u>

Deleted: Adopted by NERC Board of Trustees: February 8, 2005
 Deleted: ¶
 Formatted: Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

Deleted: 0

Deleted: Planned Outage Coordination

				<u>Transmission Owner did not provide data and information, as specified in Requirement R1, to its Transmission Operator(s).</u>
<u>R5</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Transmission Operator or Balancing Authority did not provide to other Transmission Operators or Balancing Authorities with immediate responsibility for operational reliability, the data and information requested by those entities necessary for real-time monitoring and reliability assessments.</u>

E. Regional Variances

None identified.

Deleted: Level 1: Each entity responsible for reporting information under Requirements R1 and R3 has a process in place to provide information to their Reliability Coordinator but does not have a process in place (where permitted by legal agreements) to provide this information to the neighboring Balancing Authority or Transmission Operator.¶
Level 2: N/A.¶
Level 3: N/A.¶
Level 4: There is no process in place to exchange outage information, or the entity responsible for reporting information under Requirements R1 to R3 does not follow the directives of the Reliability Coordinator to cancel or reschedule an outage.

Deleted: Differences

Deleted: Adopted by NERC Board of Trustees: February 8, 2005

Deleted: ¶

Formatted: Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

Deleted: 0

Deleted: Planned Outage Coordination

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
<u>1</u>	<u>TBD</u>	<u>Changes pursuant to Project 2007-03</u>	<u>Revised</u>

Deleted: Adopted by NERC Board of Trustees: February 8, 2005

Deleted: ¶

Formatted: Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

Page 3: [1] Deleted longm 10/6/2008 9:03:00 AM

Each Generator Operator shall provide outage information daily to its Transmission Operator for scheduled generator outages planned for the next day (any foreseen outage of a generator greater than 50 MW). The Transmission Operator shall establish the outage reporting requirements.

Page 3: [2] Deleted longm 10/6/2008 9:03:00 AM

Each Transmission Operator shall provide outage information daily to its Reliability Coordinator, and to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation. The Reliability Coordinator shall establish the outage reporting requirements.

Page 3: [3] Deleted longm 10/6/2008 9:04:00 AM

Such information shall be available by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific Standard Time for the Western Interconnection.

Page 3: [4] Deleted longm 10/6/2008 9:04:00 AM

Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of system voltage regulating equipment, such as automatic voltage regulators on generators, supplementary excitation control, synchronous condensers, shunt and series capacitors, reactors, etc., among affected Balancing Authorities and Transmission Operators as required

Page 3: [5] Deleted longm 10/6/2008 9:04:00 AM

Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of telemetering and control equipment and associated communication channels between the affected areas

Page 3: [6] Deleted longm 10/6/2008 9:04:00 AM

Each Reliability Coordinator shall resolve any scheduling of potential reliability conflicts

Page 1: [7] Deleted Edd 9/25/2008 3:20:00 PM

Adopted by NERC Board of Trustees: February 8, 2005

Page 1: [8] Formatted bogenrib 10/6/2008 12:54:00 PM

Space Before: 0 pt, After: 0 pt, Tabs: 6.5", Right + Not at 6"

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, TOP-005-1, TOP-006-1, TOP-007-0, 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 Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to governmental authorities.	October 2009

Draft 1: October 6, 2008

Deleted: Adopted by Board of Trustees: November 1, 2006
 Deleted: Page
 Deleted: of 7
 Deleted: Effective Date:
 Deleted: October 1, 2007

Deleted: 2

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.

Formatted: Underline

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: Page

Deleted: of 7

Deleted: Effective Date:

Deleted: October 1, 2007

Project 2007-03: Standard TOP-004-3 — Real-time Transmission Operations

A. Introduction

- 1. **Title:** Real-time Transmission Operations
- 2. **Number:** TOP-004-3
- 3. **Purpose:** To ensure that Transmission Operators act to preserve the reliability of the Bulk Electric System in Real-time.
- 4. **Applicability:**
 - 4.1. Transmission Operators.
- 5. **Proposed Effective Date:** All requirements will 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 first day of the first calendar quarter twenty-four months following Board of Trustees adoption.

B. Requirements

- R1. Each Transmission Operator shall operate within each identified Interconnection Reliability Operating Limits (IROLs) and its associated IROL T_v. [Violation Risk Factor: High] [Time Horizon: Real-time Operations]
- R2. Each Transmission Operator shall have Agreements with directly interconnected Transmission Operators that specify switching of synchronous BES tie lines. [Violation Risk Factor: Low] [Time Horizon: Operations Planning, Same-day Operations, Real-Time Operations]

C. Measures

- M1. Each Transmission Operator shall make available evidence for any occasion in which it has operated outside identified Interconnection Reliability Operating Limits (IROLs) and their associated IROL T_v as specified in Requirement R1. 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.
- M2. Each Transmission Operator shall make available evidence that it has Agreements with directly interconnected Transmission Operators that specify switching of synchronous BES tie lines in accordance with Requirement R2. Such evidence could include but is not limited to a dated document with confirmation of the Agreement in electronic or hard copy format.

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

Draft 1: October 6, 2008

- Deleted: 2
- Deleted: 2
- Deleted: the transmission system ... [1]
- Deleted: Twelve months after B ... [2]
- Deleted: n
- Deleted: the ... and System Op ... [3]
- Comment [Edd1]: This is nov ... [4]
- Comment [Edd2]: This is nov ... [5]
- Comment [Edd3]: This was d ... [6]
- Comment [Edd4]: The first se ... [7]
- Comment [Edd5]: The first ... [8]
- Deleted: <#>Each Transmission ... [9]
- Deleted: <#>.
- Deleted: <#>¶
- Deleted: <#>Each Transmissi ... [10]
- Deleted: <#>.
- Deleted: <#>¶
- Deleted: <#>If a Transmission ... [11]
- Formatted: Bullets and Num ... [12]
- Deleted: <#>.
- Deleted: <#>¶
- Deleted: <#>Each Transmissi ... [13]
- Deleted: <#>.
- Deleted: <#>¶
- Deleted: <#>Transmission Op ... [14]
- Deleted: <#>¶
- Deleted: <#>Monitoring and ... [15]
- Deleted: <#>¶
- Deleted: <#>Switching transm ... [16]
- Deleted: <#>¶
- Deleted: <#>Planned outages ... [17]
- Deleted: <#>¶
- Deleted: <#>Responding to IR ... [18]
- Deleted: <#>¶
- Deleted: <#>Each Transmissi ... [19]
- Formatted ... [20]
- Formatted: Bullets and Num ... [21]
- Deleted: <#>¶
- Deleted: <#>Each Transmissi ... [22]
- Deleted: <#>¶
- Deleted: <#>¶
- Formatted: Bullets and Num ... [23]
- Deleted: Monitoring Responsibility
- Deleted: Reliability Organizat ... [24]
- Deleted: One or more of the fo ... [25]
- Deleted: Adopted by Board ... [26]
- Deleted: Page ... of 7 ... [27]
- Deleted: Effective Date:
- Deleted: October 1, 2007

Deleted: 2

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

Exception Reporting of any occasion in which it has operated outside an identified IROL and the applicable IROL T_v as specified in Requirement R1 and Measurement M1.

1.4. Data Retention

The Transmission Operator 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 Transmission Operator shall retain evidence for three calendar years of any occasion in which it has operated outside identified IROL and its associated IROL T_v as specified in Requirement R1 and Measurement M1.
- The Transmission Operator shall retain evidence that it has current in force Agreements with directly interconnected Transmission Operators that specify switching of synchronous BES tie lines in accordance with Requirement R2 and Measurement M2 as well as any Agreements in force since the last compliance audit.

Formatted: Bullets and Numbering

If a Transmission 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

Submit exception reports of each instance of exceeding an IROL for time greater than the associated IROL T_v to the Compliance Enforcement Authority within thirty calendar days of the event.

Deleted: Each Transmission Operator shall keep 90 days of historical data for Measure 1. ¶
 Each Transmission Operator shall have current, in-force policies and procedures, as evidence of compliance to Measure 2. ¶
 If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer. ¶
 Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor. ¶
 The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data

2. Violation Severity Levels

R#	Lower	Moderate	High	Severe
<u>R1</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Transmission Operator did not operate within an identified Interconnection Reliability Operating Limits (IROL) and the associated IROL T_v for any single occasion.</u>
<u>R2</u>	<u>The Transmission Operator does not</u>	<u>The Transmission Operator does not</u>	<u>The Transmission Operator does not</u>	<u>The Transmission Operator does not</u>

Deleted: None.

Deleted: of Non-Compliance:

Formatted Table

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: Page

Deleted: of 7

Deleted: Effective Date:

Deleted: October 1, 2007

Project 2007-03: Standard TOP-004-3 — Real-time Transmission Operations

Deleted: 2

R#	Lower	Moderate	High	Severe
	have <u>Agreements with one of its directly interconnected Transmission Operators or 25% or less of its directly interconnected Transmission Operators that address switching of synchronous BES tie lines.</u>	have <u>Agreements with two of its directly interconnected Transmission Operators or more than 25% and less than or equal to 50% of its directly interconnected Transmission Operators that address switching of synchronous BES tie lines.</u>	have <u>Agreements with three of its directly interconnected Transmission Operators or more than 50% and less than or equal to 75% of its directly interconnected Transmission Operators that address switching of synchronous BES tie lines.</u>	have <u>Agreements with four or more of its directly interconnected Transmission Operators or more than 75% of its directly interconnected Transmission Operators that address switching of synchronous BES tie lines.</u>

Formatted Table

E. Regional Variances

None identified.

Deleted: Level 1: Not applicable. ¶
 Level 2: Did not have formal policies and procedures to address one of the topics listed in R6.1 through R6.4.¶
 Level 3: Did not have formal policies and procedures to address two of the topics listed in R6.1 through R6.4.¶
 Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:¶

Did not restore operations to respect proven reliable power system limits within 30 minutes as specified in R4.¶
 Did not have formal policies and procedures to address three or all of the topics listed in R6.1 through R6.4.

Deleted: Differences

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	Added language from Missing Measures and Compliance Elements adopted by Board of Trustees on November 1, 2006	Revised
2	December 19, 2007	Revised to reflect merging of both sets of changes approved by BOT on November 1, 2006 (Addition of measures and compliance elements and revisions to R3 and R6 with conforming changes made as errata to Levels of Non-compliance)	Revised Errata
<u>3</u>	<u>TBD</u>	<u>Changes pursuant to Project 2007-03</u>	<u>Revised</u>

Deleted: Adopted by Board of Trustees: November 1, 2006

Deleted: Page

Deleted: of 7

Deleted: Effective Date:

Deleted: October 1, 2007

Draft 1: October 6, 2008

5.

Page 3: [1] Deleted **Edd** **9/25/2008 3:58:00 PM**

the transmission system is operated so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single Contingency and specified multiple Contingencies

Page 3: [2] Deleted **Edd** **9/25/2008 3:58:00 PM**

Twelve months after BOT adoption of FAC-014.

Page 3: [3] Deleted **Edd** **9/25/2008 3:58:00 PM**

the

Page 3: [3] Deleted **Edd** **9/25/2008 3:59:00 PM**

and System Operating Limits (SOLs).

Page 3: [4] Comment [Edd1] **Edd** **9/25/2008 4:00:00 PM**

This is now covered by R1 with the inclusion of IROL and IROL T_v.

Page 3: [5] Comment [Edd2] **Edd** **9/25/2008 4:01:00 PM**

This is now covered by R1 with the inclusion of IROL and IROL T_v.

Page 3: [6] Comment [Edd3] **Edd** **9/25/2008 4:01:00 PM**

This was deleted as unmeasurable.

Page 3: [7] Comment [Edd4] **Edd** **9/25/2008 4:02:00 PM**

The first sentence was deleted as unmeasurable. The second sentence was deleted as it is covered by TOP-001-1.

Page 3: [8] Comment [Edd5] **Edd** **9/25/2008 4:03:00 PM**

The first sentence was deleted as it is good utility practice. The second sentence was deleted as all of the sub-requirements were deleted:

R6.1 as duplicative of FAC-008 & FAC-009;

R6.2 as duplicative of VAR-001-1, R1 for voltage levels and reactive power and real power by R10;

R6.3 as it is now covered in new R3;

R6.4 as now covered in TOP-002-3;

R6.5 as already covered by FAC-011 & FAC-014; and

R6.6 as now covered in TOP-002-3.

Page 3: [9] Deleted **longm** **10/6/2008 9:18:00 AM**

Each Transmission Operator shall operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency

Page 3: [10] Deleted **longm** **10/6/2008 9:18:00 AM**

Each Transmission Operator shall operate to protect against instability, uncontrolled separation, or cascading outages resulting from multiple outages, as specified by its Reliability Coordinator

Page 3: [11] Deleted longm 10/6/2008 9:19:00 AM

If a Transmission Operator enters an unknown operating state (i.e. any state for which valid operating limits have not been determined), it will be considered to be in an emergency and shall restore operations to respect proven reliable power system limits within 30 minutes

Page 3: [12] Change longm 10/6/2008 9:16:00 AM

Formatted Bullets and Numbering

Page 3: [13] Deleted longm 10/6/2008 9:18:00 AM

Each Transmission Operator shall make every effort to remain connected to the Interconnection. If the Transmission Operator determines that by remaining interconnected, it is in imminent danger of violating an IROL or SOL, the Transmission Operator may take such actions, as it deems necessary, to protect its area

Page 3: [14] Deleted longm 10/6/2008 9:18:00 AM

Transmission Operators, individually and jointly with other Transmission Operators, shall develop, maintain, and implement formal policies and procedures to provide for transmission reliability. These policies and procedures shall address the execution and coordination of activities that impact inter- and intra-Regional reliability, including:

Page 3: [15] Deleted longm 10/6/2008 9:19:00 AM

Monitoring and controlling voltage levels and real and reactive power flows.

Page 3: [16] Deleted longm 10/6/2008 9:19:00 AM

Switching transmission elements.

Page 3: [17] Deleted longm 10/6/2008 9:19:00 AM

Planned outages of transmission elements.

Page 3: [18] Deleted longm 10/6/2008 9:19:00 AM

Responding to IROL and SOL violations.

Page 3: [19] Deleted longm 10/6/2008 9:20:00 AM

Each Transmission Operator that enters an unknown operating state for which valid limits have not been determined, shall have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, alarm program printouts, or other equivalent evidence that will be used to determine if it restored operations to respect proven reliable power system limits within 30 minutes as specified in Requirement 4.

Page 3: [20] Formatted longm 10/6/2008 9:19:00 AM

Indent: Left: 0.25", Hanging: 0.4", Tabs: 0.25", List tab + 0.65", Left + 0.88", Left + 1.8", Left + 2.25", Left

Page 3: [21] Change longm 10/6/2008 9:16:00 AM

Formatted Bullets and Numbering

Page 3: [22] Deleted longm 10/6/2008 9:20:00 AM

Each Transmission Operator shall have and provide upon request current policies and procedures that address the execution and coordination of activities that impact inter- and intra-Regional reliability for each of the topics listed in Requirements 6.1 through 6.6.

Page 3: [23] Change bogenrib 7/25/2008 9:32:00 AM

Formatted Bullets and Numbering

Page 3: [24] Deleted Edd 9/25/2008 4:09:00 PM

Reliability Organizations shall be responsible for compliance monitoring.

Page 3: [25] Deleted Edd 9/25/2008 4:09:00 PM

One or more of the following methods will be used to assess compliance:

Self-certification (Conducted annually with submission according to schedule.)

Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)

Periodic Audit (Conducted once every three years according to schedule.)

Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)

The Performance-Reset Period shall be 12 months from the last finding of non-compliance.

Page 1: [26] Deleted Edd 9/25/2008 3:57:00 PM

Adopted by Board of Trustees: November 1, 2006

Page 1: [27] Deleted longm 10/6/2008 9:16:00 AM

Page

Page 1: [27] Deleted longm 10/6/2008 9:16:00 AM

of 7

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, TOP-005-1, TOP-006-1, TOP-007-0, 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 Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 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:** **Operational Reliability Information**
- 2. **Number:** TOP-005-1
- 3. **Purpose:** To ensure reliability entities have the operating data needed to monitor system conditions within their areas.
- 4. **Applicability**
 - 4.1. Transmission Operators.
 - 4.2. Balancing Authorities.
 - 4.3. Reliability Coordinators.
 - 4.4. Purchasing-Selling Entities.
- 5. **Effective Date:** November 1, 2006 All requirements will be retired on the first day of the first calendar quarter twenty-four months following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements are retired twenty-four months following Board of Trustees adoption.

B. Requirements

- R1. Each Transmission Operator and Balancing Authority shall provide its Reliability Coordinator with the operating data that the Reliability Coordinator requires to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.
- R1.1. Each Reliability Coordinator shall identify the data requirements from the list in Attachment 1 TOP-005-0 “Electric System Reliability Data” and any additional operating information requirements relating to operation of the bulk power system within the Reliability Coordinator Area.
- R2. As a condition of receiving data from the Interregional Security Network (ISN), each ISN data recipient shall sign the NERC Confidentiality Agreement for “Electric System Reliability Data.”
- R3. Upon request, each Balancing Authority and Transmission Operator shall provide to other Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability, the operating data that are necessary to allow these Balancing Authorities and Transmission Operators to perform operational reliability assessments and to coordinate reliable operations. Balancing Authorities and Transmission Operators shall provide the types of data as listed in Attachment 1 TOP-005-0 “Electric System Reliability Data,” unless otherwise agreed to by the Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability.
- R4. Each Purchasing-Selling Entity shall provide information as requested by its Host Balancing Authorities and Transmission Operators to enable them to conduct operational reliability assessments and coordinate reliable operations.

Comment [Edd1]: Deleted – covered by IRO-010-1, R3.

Comment [Edd2]: Deleted – covered in IRO-010.

Comment [Edd3]: Deleted – not a reliability concern.

Comment [Edd4]: Deleted – now covered in TOP-003-1.

Comment [Edd5]: Deleted – the PSE does not have any unique information needed by the TOP or BA.

C. Measures

- M1. Evidence that the Reliability Coordinator, Balancing Authority, Transmission Operator, and Purchasing-Selling Entity is providing the information required, within the time intervals specified, and in a format agreed upon by the requesting entities.

Comment [Edd6]: Due to the large number of changes made to the requirements and measures, and the new format for compliance elements, the new compliance elements are only shown in the clean version for ease of reading and comprehension.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

~~Self Certification: Entities shall annually self-certify compliance to the measures as required by its Regional Reliability Organization.~~

~~Exception Reporting: Each Region shall report compliance and violations to NERC via the NERC compliance reporting process.~~

1.2. Compliance Monitoring Period and Reset Time Frame

~~Periodic Review: Entities will be selected for operational reviews at least every three years. One calendar year without a violation from the time of the violation.~~

1.3. Data Retention

~~Not specified.~~

1.4. Additional Compliance Information

~~Not specified.~~

2. Levels of Non-Compliance

~~2.1. Level 1: — Each entity responsible for reporting information under Requirements R1 to R5 is providing the requesting entities with the data required, in specified time intervals and format, but there are problems with consistency of delivery identified in the measuring process that need remedy (e.g., the data is not supplied consistently due to equipment malfunctions, or scaling is incorrect).~~

~~2.2. Level 2: — N/A.~~

~~2.3. Level 3: — N/A.~~

~~2.4. Level 4: — Each entity responsible for reporting information under Requirements R1 to R5 is not providing the requesting entities with data with the specified content, timeliness, or format. The information missing is included in the requesting entity’s list of data.~~

E. Regional Differences

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
<u>2</u>	<u>TBD</u>	<u>TBD.</u>	<u>Pursuant to changes in Project 2007-03.</u>

Attachment 1-TOP-005-0
Electric System Reliability Data

This Attachment lists the types of data that Reliability Coordinators, Balancing Authorities, and Transmission Operators are expected to provide, and are expected to share with each other.

3. The following information shall be updated at least every ten minutes:
 - 3.1. Transmission data. Transmission data for all Interconnections plus all other facilities considered key, from a reliability standpoint:
 - 3.1.1 — Status.
 - 3.1.2 — MW or ampere loadings.
 - 3.1.3 — MVA capability.
 - 3.1.4 — Transformer tap and phase angle settings.
 - 3.1.5 Key voltages.
 - 3.2. Generator data:
 - 3.2.1 — Status.
 - 3.2.2 — MW and MVAR capability.
 - 3.2.3 — MW and MVAR net output.
 - 3.2.4 Status of automatic voltage control facilities.
 - 3.3. Operating reserve.
 - 3.3.1 MW reserve available within ten minutes.
 - 3.4. Balancing Authority demand.
 - 3.4.1 Instantaneous.
 - 3.5. Interchange.
 - 3.5.1 — Instantaneous actual interchange with each Balancing Authority.
 - 3.5.2 — Current Interchange Schedules with each Balancing Authority by individual Interchange Transaction, including Interchange identifiers, and reserve responsibilities.
 - 3.5.3 Interchange Schedules for the next 24 hours.
 - 3.6. Area Control Error and frequency.
 - 3.6.1 — Instantaneous area control error.
 - 3.6.2 — Clock hour area control error.
 - 3.6.3 System frequency at one or more locations in the Balancing Authority.
4. Other operating information updated as soon as available.
 - 4.1. Interconnection Reliability Operating Limits and System Operating Limits in effect.
 - 4.2. Forecast of operating reserve at peak, and time of peak for current day and next day.
 - 4.3. Forecast peak demand for current day and next day.
 - 4.4. Forecast changes in equipment status.
 - 4.5. New facilities in place.

- ~~4.6. New or degraded special protection systems.~~
- ~~4.7. Emergency operating procedures in effect.~~
- ~~4.8. Severe weather, fire, or earthquake.~~
- 4.9. Multi-site sabotage.

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, TOP-005-1, TOP-006-1, TOP-007-0, 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. Changes made in this project are dependent on corresponding changes to Project Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 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:** ~~Monitoring System Conditions~~
- 2. **Number:** ~~TOP-006-1~~
- 3. **Purpose:**
To ensure critical reliability parameters are monitored in real time.
- 4. **Applicability**
 - 4.1. ~~Transmission Operators.~~
 - 4.2. ~~Balancing Authorities.~~
 - 4.3. ~~Generator Operators.~~
 - 4.4. ~~Reliability Coordinators.~~

- 5. **Effective Date:** All requirements will be retired on the first day of the first calendar quarter twenty-four months following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements are retired twenty-four months following Board of Trustees adoption.

Deleted: January 1, 2007

B. Requirements

- R1. ~~Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use.~~
 - R1.1. ~~Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.~~
 - R1.2. ~~Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.~~
- R2. ~~Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load tap changer settings, and status of rotating and static reactive resources.~~
- R3. ~~Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.~~
- R4. ~~Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near term load pattern.~~
- R5. ~~Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action.~~
- R6. ~~Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.~~

Comment [Edd1]: Delete – now covered in TOP-002-3.

Comment [Edd2]: Delete – now covered in TOP-002-3.

Comment [Edd3]: Delete – now covered in IRO-010-1, R3.

Comment [Edd4]: Delete – now covered in TOP-002-3.

Comment [Edd5]: Delete – now covered in PRC-001-1, R1.

Comment [Edd6]: Load patterns now covered in the new TOP-005. Remainder not required for reliability.

Comment [Edd7]: Delete – now covered in TOP-004-2.

Comment [Edd8]: Delete – now covered in TOP-004-2.

- ~~R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency.~~

Comment [Edd9]: Delete – RC handled in IRO standards. TOP & BA now covered in certification process and no longer required in standards.

C. Measures

- ~~M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement 1.1)~~
- ~~M2. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use. (Requirement 1.2)~~
- ~~M3. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement 2.~~
- ~~M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near term load pattern. (Requirement 4)~~
- ~~M5. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement 5)~~
- ~~M6. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement 7)~~

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organizations shall be responsible for compliance monitoring.

1.2. Compliance Monitoring and Reset Time Frame

One or more of the following methods will be used to assess compliance:

- ~~— Self certification (Conducted annually with submission according to schedule.)~~
- ~~- Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)~~
- ~~— Periodic Audit (Conducted once every three years according to schedule.)~~
- ~~— Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)~~

~~The Performance Reset Period shall be 12 months from the last finding of non-compliance.~~

1.3. Data Retention

~~Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.~~

~~Each Transmission Operator and Balancing Authority shall keep 90 days of historical data (evidence) for Measure 2.~~

~~Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure 3, 5 and 6.~~

~~Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure 4.~~

~~If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.~~

~~Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor.~~

~~The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data~~

1.4. Additional Compliance Information

~~None.~~

2. Levels of Non-Compliance for Reliability Coordinators:

~~2.1. Level 1: Not applicable.~~

~~2.2. Level 2: Not applicable.~~

~~2.3. Level 3: Not applicable.~~

~~2.4. Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:~~

~~2.4.1 Does not monitor all of the applicable items listed in Requirement 2.~~

~~2.4.2 Did not have the information specified in R4.~~

~~2.4.3~~ Did not bring to the attention of its operators, important deviations in operating conditions and the need for corrective actions. (Requirement 5)

~~2.4.4~~ No evidence it monitors system frequency. (Requirement 7)

3. Levels of Non-Compliance for Generator Operators:

~~3.1. Level 1:~~ Not applicable.

~~3.2. Level 2:~~ Not applicable.

~~3.3. Level 3:~~ Not applicable.

~~3.4. Level 4:~~ Did not inform its Host Balancing Authority and/or the Transmission Operator of all generation resources available for use. (R1.1)

4. Levels of Non-Compliance for Transmission Operators and Balancing Authorities:

~~4.1. Level 1:~~ Not applicable.

~~4.2. Level 2:~~ Not applicable.

~~4.3. Level 3:~~ Not applicable.

~~4.4. Level 4:~~ There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

~~4.4.1~~ Did not inform the Reliability Coordinator and/or other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use in accordance with R1.2.

~~4.4.2~~ Does not monitor all the applicable items listed in R2.

~~4.4.3~~ Did not have the information specified in R4.

~~4.4.4~~ Does not have monitoring to bring to the attention of operating personnel important deviations in operating conditions and the need for corrective actions as specified in R5.

~~4.4.5~~ No evidence it monitors system frequency. (R7).

E. Regional Differences

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
<u>1</u>	<u>TBD</u>	<u>Retired.</u>	<u>Pursuant to changes in Project 2007-03.</u>

Project 2007-03: Standard TOP-007-0 — Reporting System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) Violations

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, TOP-005-1, TOP-006-1, TOP-007-0, 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. Changes made in this project are dependent on corresponding changes to Project Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 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.

Project 2007-03: Standard TOP-007-0 — Reporting System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) Violations

A. Introduction

1. **Title:** Reporting System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) Violations
2. **Number:** TOP-007-0
3. **Purpose:**
This standard ensures SOL and IROL violations are being reported to the Reliability Coordinator so that the Reliability Coordinator may evaluate actions being taken and direct additional corrective actions as needed.
4. **Applicability:**
 - 4.1. Transmission Operators.
 - 4.2. Reliability Coordinators.
5. **Effective Date:** April 1, 2005. All requirements will be retired on the first day of the first calendar quarter twenty-four months following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements are retired twenty-four months following Board of Trustees adoption.

B. Requirements

- R1. A Transmission Operator shall inform its Reliability Coordinator when an IROL or SOL has been exceeded and the actions being taken to return the system to within limits.
- R2. Following a Contingency or other event that results in an IROL violation, the Transmission Operator shall return its transmission system to within IROL as soon as possible, but not longer than 30 minutes.
- R3. A Transmission Operator shall take all appropriate actions up to and including shedding firm load, or directing the shedding of firm load, in order to comply with Requirement R2.
- R4. The Reliability Coordinator shall evaluate actions taken to address an IROL or SOL violation and, if the actions taken are not appropriate or sufficient, direct actions required to return the system to within limits.

Comment [Edd1]: Moved to TOP-001-2, R9 (redlined version).

Comment [Edd2]: Moved to TOP-004-2, R1.

Comment [Edd3]: This authority already exists and does not need to be cited in a requirement.

Comment [Edd4]: Delete as this is now covered in the IROL Project.

C. Measures

- M1. Evidence that the Transmission Operator informed the Reliability Coordinator when an IROL or SOL was exceeded and the actions taken to return the system to within limits.
- M2. Evidence that the Transmission Operator returned the system to within IROL within 30 minutes for each incident that an IROL, or SOL that became an IROL due to changed system conditions, was exceeded.
- M3. Evidence that the Reliability Coordinator evaluated actions and provided direction required to return the system to within limits.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

The Reliability Coordinator shall report any IROL violation exceeding 30 minutes to the Regional Reliability Organization and NERC within 72 hours. Each Regional Reliability Organization shall report any such violations to NERC via the NERC compliance reporting process. The Reliability Coordinator shall report any SOL

Project 2007-03: Standard TOP-007-0 — Reporting System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) Violations

violation that has become an IROL violation because of changed system conditions; i.e. exceeding the limit will require action to prevent:

1.1.1. System instability.

1.1.2. Unacceptable system dynamic response or equipment tripping.

1.1.3. Voltage levels in violation of applicable emergency limits.

1.1.4. Loadings on transmission facilities in violation of applicable emergency limits.

1.1.5. Unacceptable loss of load based on regional and/or NERC criteria.

1.2. Compliance Monitoring Period and Reset Timeframe

The reset period is monthly.

1.3. Data Retention

The data retention period is three months.

2. Levels of Non-Compliance

2.1. The Transmission Operator did not inform the Reliability Coordinator of an IROL or an SOL that has become an IROL because of changed system conditions, and the actions they are taking to return the system to within limits, or

2.2. The Transmission Operator did not take corrective actions as directed by the Reliability Coordinator to return the system to within the IROL within 30 minutes. (See Table 1 TOP-007-0 below.)

2.3. The limit violation was reported to the Reliability Coordinator, who did not provide appropriate direction to the Transmission Operator, resulting in an IROL violation in excess of 30 minutes duration.

Table 1 TOP-007-0 IROL and SOL Reporting Levels of Non-Compliance

Percentage by which IROL or SOL that has become an IROL is exceeded*	Limit exceeded for more than 30 minutes, up to 35 minutes.	Limit exceeded for more than 35 minutes, up to 40 minutes.	Limit exceeded for more than 40 minutes, up to 45 minutes.	Limit exceeded for more than 45 minutes.
Greater than 0%, up to and including 5%	Level 1	Level 2	Level 2	Level 3
Greater than 5%, up to and including 10%	Level 2	Level 2	Level 3	Level 3
Greater than 10%, up to and including 15%	Level 2	Level 3	Level 3	Level 4
Greater than 15%, up to and including 20%	Level 3	Level 3	Level 4	Level 4
Greater than 20%, up to and including 25%	Level 3	Level 4	Level 4	Level 4
Greater than 25%	Level 4	Level 4	Level 4	Level 4

*Percentage used in the left column is the flow measured at the end of the time period (30, 35, 40, or 45 minutes).

Project 2007-03: Standard TOP-007-0 — Reporting System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) Violations

E. Regional Differences

~~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
<u>1</u>	<u>TBD</u>	<u>Retired.</u>	<u>Changes pursuant to Project 2007-03.</u>

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions TOP-005-1, TOP-006-1, TOP-007-0, TOP-008-0, and PER-001-0 will be retired. The requirements in this standard have been eliminated or moved to other standards within this project. Some changes made in this project are dependent on corresponding changes to Project Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 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.

Formatted: Font: Bold

Deleted: ¶

A. Introduction

1. **Title:** ~~Response to Transmission Limit Violations~~
2. **Number:** TOP-008-0
3. **Purpose:** ~~To ensure Transmission Operators take actions to mitigate SOL and IROL violations.~~
4. **Applicability**
 - 4.1. ~~Transmission Operators.~~
5. **Effective Date:** All requirements will be retired on the first day of the first calendar quarter twenty-four months following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements are retired twenty-four months following Board of Trustees adoption.

B. Requirements

- ~~R1.~~ The Transmission Operator experiencing or contributing to an IROL or SOL violation shall take immediate steps to relieve the condition, which may include shedding firm load.
- ~~R2.~~ Each Transmission Operator shall operate to prevent the likelihood that a disturbance, action, or inaction will result in an IROL or SOL violation in its area or another area of the Interconnection. In instances where there is a difference in derived operating limits, the Transmission Operator shall always operate the Bulk Electric System to the most limiting parameter.
- ~~R3.~~ The Transmission Operator shall disconnect the affected facility if the overload on a transmission facility or abnormal voltage or reactive condition persists and equipment is endangered. In doing so, the Transmission Operator shall notify its Reliability Coordinator and all neighboring Transmission Operators impacted by the disconnection prior to switching, if time permits, otherwise, immediately thereafter.
- ~~R4.~~ The Transmission Operator shall have sufficient information and analysis tools to determine the cause(s) of SOL violations. This analysis shall be conducted in all operating timeframes. The Transmission Operator shall use the results of these analyses to immediately mitigate the SOL violation.

Comment [Edd1]: Deleted – now covered by TOP-003-1 for IROL. Taking immediate steps for relief of all SOLs experienced or contributed to may not always be prudent, especially if other organizations are addressing the cause. In such cases, uncoordinated immediate actions may be counterproductive. Accordingly, requiring immediate action to relieve all SOLs was deleted in consideration of TOP-001-1 and TOP-004-2 Requirements applied in combination.

Comment [Edd2]: First sentence moved to TOP-002-1. Second sentence moved to TOP-001, R1. .

Comment [Edd3]: Delete first sentence – bad operating practice, actually eliminates operator flexibility and thus increases risk to the System. Delete second sentence as duplicative of IRO-009-1 as well as FAC-010-1, FAC-011-1, and FAC-014-1.

Comment [Edd4]: Delete – now covered in TOP-004-2.

C. Measures

Not specified.

D. Compliance

Not specified.

E. Regional Differences

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
<u>1</u>	<u>TBD</u>	<u>Retire.</u>	<u>Changes pursuant to Project 2007-03.</u>

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.

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 3Q09. The current draft is the first posting of the revised standards. As part of the proposed revisions, TOP-005-1, TOP-006-1, TOP-007-0, 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 Pre-2006, Operate Within Interconnection Reliability Operating Limits (IRO-008 through IRO-010), and Project 2006-06, Reliability Coordination, being approved.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. First posting of revised standards.	October 2008
2. Second posting of revised standards.	January 2009
3. Third posting of revised standards.	April 2009
4. Post for ballot.	July 2009
5. Post for re-ballot.	September 2009
6. Submit to BOT.	September 2009
7. Submit to regulatory authorities for approval.	October 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:** ~~Operating Personnel Responsibility and Authority~~
- 2. **Number:** PER-001-0
- 3. **Purpose:** ~~Transmission Operator and Balancing Authority operating personnel must have the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.~~
- 4. **Applicability**
 - 4.1. ~~Transmission Operators.~~
 - 4.2. ~~Balancing Authorities.~~
- 5. **Effective Date:** ~~1. All requirements will be retired on the first day of the first calendar quarter twenty-four months following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements are retired twenty-four months following Board of Trustees adoption.~~

Deleted: April 1, 2005

Deleted:

Deleted:

B. Requirements

- ~~R1. Each Transmission Operator and Balancing Authority shall provide operating personnel with the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.~~

Comment [Edd1]: This statement is not needed in a reliability standard. The standards already require the necessary actions. The concept of protecting the operator by requiring authorization within a company for him/her to shed firm load is not a reliability requirement.

C. Measures

- ~~M1. The Transmission Operator and Balancing Authority provide documentation that operating personnel have the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System. These responsibilities and authorities are understood by the operating personnel. Documentation shall include:~~
 - ~~M1.1 A written current job description that states in clear and unambiguous language the responsibilities and authorities of each operating position of a Transmission Operator and Balancing Authority. The position description identifies personnel subject to the authority of the Transmission Operator and Balancing Authority.~~
 - ~~M1.2 The current job description is readily accessible in the control room environment to all operating personnel.~~
 - ~~M1.3 A written current job description that states operating personnel are responsible for complying with the NERC reliability standards.~~
 - ~~M1.4 Written operating procedures that state that, during normal and emergency conditions, operating personnel have the authority to take or direct timely and appropriate real-time actions. Such actions shall include shedding of firm load to prevent or alleviate System Operating Limit Interconnection or Reliability Operating Limit violations. These actions are performed without obtaining approval from higher-level personnel within the Transmission Operator or Balancing Authority.~~

D. Compliance

1. Compliance Monitoring Process

~~Periodic Review: An on-site review including interviews with Transmission Operator and Balancing Authority operating personnel and document verification will be conducted every three years. The job description identifying operating personnel authorities and responsibilities will be reviewed, as will the written operating procedures or other documents delineating the~~

Project 2007-03: Standard PER-001-0 — Operating Personnel Responsibility and Authority

authority of the operating personnel to take actions necessary to maintain the reliability of the Bulk Electric System during normal and emergency conditions.

1.1. Compliance Monitoring Responsibility

~~Self certification: The Transmission Operator and Balancing Authority shall annually complete a self certification form developed by the Regional Reliability Organization based on measures M1.1 to M1.4.~~

1.2. Compliance Monitoring Period and Reset Timeframe

~~One calendar year.~~

1.3. Data Retention

~~Permanent.~~

1.4. Additional Compliance Information

2. Levels of Non-Compliance

~~**2.1. Level 1:** The Transmission Operator or Balancing Authority has written documentation that includes three of the four items in M1.~~

~~**2.2. Level 2:** The Transmission Operator or Balancing Authority has written documentation that includes two of the four items in M1.~~

~~**2.3. Level 3:** The Transmission Operator or Balancing Authority has written documentation that includes one of the four items in M1.~~

~~**2.4. Level 4:** The Transmission Operator or Balancing Authority has written documentation that includes none of the items in M1, or the personnel interviews indicate Transmission Operator or Balancing Authority do not have the required authority.~~

E. Regional Differences

~~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
<u>0</u>	<u>TBD</u>	<u>Retire.</u>	<u>Changes pursuant to Project 2007-03.</u>