Standard Development Timeline

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed

SAR posted for comment February 21, 2014 to March 24, 2014

First posting May 19, 2014 to July 2, 2014

Proposed Action Plan and Description of Current Draft

This is the ~~first~~second posting of the revised standard under Project 2014-03 Revisions to the TOP/IRO Reliability Standards. The SDT is working under a deadline for filing the revised standards with FERC of January 31, 2015.

Anticipated Actions	Anticipated Date
~~Additional ballot~~	~~August 2014~~
Final ballot	October 2014
BOT	November 2014

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2	June 14, 2007	Fixed typo in R11., (subject to …)	Errata
2a	February 10, 2009	Added Appendix 1 – Interpretation of R11 approved by BOT on February 10, 2009	Interpretation
2a	December 2, 2009	Interpretation of R11 approved by FERC on December 2, 2009	Same Interpretation
2b	November 4, 2010	Added Appendix 2 – Interpretation of R10 adopted by the Board of Trustees	
2b	October 20, 2011	FERC Order issued approving the Interpretation of R10 (FERC's Order became effective on October 20, 2011)	
2.1b	March 8, 2012	Errata adopted by Standards Committee; (Removed unnecessary language from the Effective Date section. Deleted retired sub-requirements from Requirement R14)	Errata
2.1b	April 11, 2012	Additional errata adopted by Standards Committee; (Deleted language from retired sub-requirement from Measure M7)	Errata
2.1b	September 13, 2012	FERC approved	Errata
3	May 6, 2012	Revised under Project 2007-03.	Revised

3	May 9, 2012	Adopted by Board of Trustees	Revised
4	April 2014	Revisions pursuant to Project 2014-03	Revised

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.

Operational Planning Analysis: An evaluation of projected system conditions to assess anticipated (pre-Contingency) and potential (post-Contingency) conditions for next-day operations. The evaluation shall reflect applicable inputs including, but not limited to, load forecasts; generation output levels; Interchange; known Protection System and Special Protection System status or degradation; Transmission outages; generator outages; Facility Ratings; and identified phase angle and equipment limitations. (Operational Planning Analysis may be provided through internal systems or through ~~contracted~~third-party services.)

Rationale - ~~Changes made to the proposed definition were made in order to respond to issues raised in NOPR paragraphs 55, 73, and 74 dealing with analysis of SOLs in all time horizons, questions on Protection Systems and Special Protection Systems in NOPR paragraph 78, and recommendations on phase angles from the SW Outage Report (recommendation 27). The intent of such changes is to ensure that Operational Planning Analyses contain sufficient details to result in an appropriate level of situational awareness. For example, analysis of post-Contingency phase angles may result in an Operating Plan to adjust generation or curtail transactions so that a Transmission facility may be returned to service post-Contingency.~~

~~Note that 'load' is not capitalized in load forecast as it is the whole phrase that is the item of interest and 'load forecast' is not a defined term.~~

Rationale - Changes made to the proposed definitions were made in order to respond to issues raised in NOPR paragraphs 55, 73, and 74 dealing with analysis of SOLs in all time horizons, questions on Protection Systems and Special Protection Systems in NOPR paragraph 78, and recommendations on phase angles from the SW Outage Report (recommendation 27). The intent of such changes is to ensure that Real-time Assessments contain sufficient details to result in an appropriate level of situational awareness. Some examples include: 1) analyzing phase angles which may result in the implementation of an Operating Plan to adjust generation or curtail transactions so that a Transmission facility may be returned to service, or 2) evaluating the impact of a modified Contingency resulting from the status change of a Special Protection Scheme from enabled/in-service to disabled/out-of-service.

When this standard has received ballot approval, the text boxes will be moved to the Application Guidelines Section of the Standard.

A. Introduction

1. **Title: Operations Planning**

2. **Number: TOP-002-4**

3. **Purpose:** To ensure that Transmission Operators and Balancing Authorities have plans for operating within specified limits.

4. **Applicability:**

   4.1. Transmission Operator

   4.2. Balancing Authority

5. **Effective Date:**

   The standard shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date that the standard is approved by an applicable governmental authority or as otherwise provided for in a jurisdiction where approval by an applicable governmental authority is required for a standard to go into effect. Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date the standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

6. **Background:**

   ~~On April 16, 2013, NERC submitted two petitions requesting Commission approval of TOP and IRO standards. One petition addresses three revised TOP Reliability Standards: TOP-001-2 (Transmission Operations), TOP-002-3 (Operations Planning), TOP-003-2 (Operational Reliability Data), and one Protection Systems (PRC) Reliability Standard, PRC-001-2 (System Protection Coordination) to replace the eight currently-effective TOP standards. The second petition addresses four revised IRO Reliability Standards: IRO-001-3 (Responsibilities and Authorities), IRO-002-3 (Analysis Tools), IRO-005-4 (Current Day Operations), and IRO-014-2 (Coordination among Reliability Coordinators) to replace six currently-effective IRO standards.~~

   ~~On November 21, 2013, the Commission issued a NOPR proposing to remand these TOP and IRO Standards, stating that NERC "has removed critical reliability aspects that are included in the currently-effective standards without adequately addressing these aspects in the proposed standards." For example, the Commission cites the fact that the proposed TOP Standards do not require Transmission Operators to plan and operate within all System Operating Limits ("SOLs"), which is a requirement in the currently-effective standards.~~

~~On December 20, 2013, NERC filed a motion requesting that the Commission defer action on the NOPR until January 31, 2015 to provide NERC and the industry the opportunity to thoroughly examine the technical concerns raised in the NOPR and afford time to review the proposed TOP and IRO Standards through the NERC standards development process to ensure that a technically justified set of solutions is in place for reliability. That motion to defer action was granted on January 14, 2014.~~

~~On February 12, 2014, the Standards Committee appointed a Standard Drafting Team to take on the task of revising the aforementioned standards in response to the NOPR issues and the recommendations made by the Independent Expert Review Panel, the IRO FYRT, and the SW Outage Report~~See Project 2014-03 project page.

B. Requirements and Measures

Rationale for Requirement R1: Terms deleted in Requirement R1 as they are now contained in the revised definition of Operational Planning Analysis.

R1. Each Transmission Operator shall have an Operational Planning Analysis that will allow it to assess whether its planned operations for the next day within its Transmission Operator Area will exceed any of its System Operating Limits (SOLs). *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

M1. Each Transmission Operator shall have evidence of a completed Operational Planning Analysis. Such evidence could include but is not limited to dated power flow study results.

Rationale for Requirement R2: The change to Requirement R2 is in response to NOPR paragraph 42 and in concert with proposed changes made to proposed TOP-001-4.

R2. Each Transmission Operator shall have an Operating Plan(s) for next-day operations to address potential System Operating Limit (SOL) exceedances identified as a result of its Operational Planning Analysis as required in Requirement R1. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

M2. Each Transmission Operator shall have evidence that it has an Operating Plan to address potential System Operating Limits (SOLs) identified as a result of the Operational Planning Analysis performed in Requirement R1. Such evidence could include~~,~~ but it is not limited to~~,~~ plans for precluding operating in excess of each SOL that was identified as a result of the Operational Planning Analysis.

Rationale for Requirement R3: Changes in response to IERP recommendation.

R3. Each Transmission Operator shall notify impacted ~~NERC registered~~ entities identified in the Operating Plan(s) cited in Requirement R2 as to their role in those plan(s). *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

M3. Each Transmission Operator shall have evidence that it notified impacted ~~NERC registered~~ entities identified in the Operating Plan(s) cited in Requirement R2 as to their role in the plan(s). Such evidence could include but is not limited to dated operator logs, or e-mail records.

Rationale~~:~~ for Requirements R4 and R5: These Requirements were added ~~due~~ to address IERP recommendations.

R4. Each Balancing Authority shall have an Operating Plan(s) for the next-day that addresses: *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

4.1 Expected generation resource commitment and dispatch

4.2 Interchange scheduling

4.3 Demand patterns

4.4 Capacity and energy reserve requirements, including deliverability capability

M4. Each Balancing Authority shall have evidence that it has developed a plan to operate within the criteria identified. Such evidence could include~~,~~ but is not limited to~~,~~ dated operator logs or e-mail records.

R5. Each Balancing Authority shall notify impacted ~~NERC registered~~ entities identified in the Operating Plan(s) cited in Requirement R4 as to their role in those plan(s). *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

M5. Each Balancing Authority shall have evidence that it notified impacted ~~NERC registered~~ entities identified in the plan(s) cited in Requirement R4 as to their role in the plan(s). Such evidence could include~~,~~ but is not limited to~~,~~ dated operator logs or e-mail records.

Rationale for Requirements R6 and R7: Added in response to SW Outage Report recommendation 1.

R6. Each Transmission Operator shall provide its Operating Plan(s) for next-day operations identified in Requirement R2 to its Reliability Coordinator. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

M6. Each Transmission Operator shall have evidence that it provided its Operating Plan(s) for next-day operations identified in Requirement R2 to its Reliability Coordinator.

Such evidence could include~~,~~ but is not limited to~~,~~ dated operator logs or e-mail records.

R7. Each Balancing Authority shall provide its Operating Plan(s) for next-day operations identified in Requirement R4 to its Reliability Coordinator. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

M7. Each Balancing Authority shall have evidence that it provided its Operating Plan(s) for next-day operations identified in Requirement R4 to its Reliability Coordinator. Such evidence could include~~,~~ but is not limited to~~,~~ dated operator logs or e-mail records.

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority" (CEA) means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

1.2. Compliance Monitoring and ~~Enforcement~~Assessment Processes

~~Compliance Audit~~

~~Self-Certifications~~

~~Spot Checking~~

~~Compliance Investigations~~

~~Self-Reporting~~

~~Complaints~~

As defined in the NERC Rules of Procedure, "Compliance Monitoring and Assessment Processes" refers to the identification of the processes that will be used to evaluate data or information for the purpose of assessing performance or outcomes with the associated reliability standard.

1.3. Data Retention

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

Each Transmission Operator and Balancing Authority shall keep data or evidence to show compliance for each applicable Requirement for a rolling ~~six month~~90 calendar days period for analyses, the most recent ~~three months~~90 calendar days for voice recordings, and 12 months for operating logs and e-mail records unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Transmission Operator or Balancing Authority is found non-compliant, it shall keep information related to the non-compliance until found compliant or the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records

1.4. Additional Compliance Information

None.

Table of Compliance Elements

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Operations Planning	Medium	N/A	N/A	N/A	The Transmission Operator did not have an Operational Planning Analysis allowing it to assess whether its planned operations for the next day within its Transmission Operator Area ~~will~~ exceeded any of its System Operating Limits (SOLs).
R2	Operations Planning	Medium	N/A	N/A	N/A	The Transmission Operator did not have an Operating Plan to address potential System Operating Limit (SOL) exceedances identified as a result of the Operational Planning Analysis performed in Requirement R1.

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
For the Requirement R3 and R5 VSLs only, the intent of the SDT is to start with the Severe VSL first and then to work your way to the left until you find the situation that fits. In this manner, the VSL will not be discriminatory by size of entity. If a small entity has just one affected reliability entity to inform, the intent is that that situation would be a Severe violation.						
R3	Operations Planning	Medium	The Transmission Operator did not notify one impacted ~~NERC registered~~ entity or 5% or less of the impacted ~~NERC registered~~ entities whichever is less identified in the Operating Plan(s) as to their role in the plan(s).	The Transmission Operator did not notify two impacted ~~NERC registered~~ entities or more than 5% and less than or equal to 10% of the impacted ~~NERC registered~~ entities whichever is less, identified in the Operating Plan(s) as to their role in the plan(s).	The Transmission Operator did not notify three impacted NERC ~~registered entities~~ or more than 10% and less than or equal to 15% of the impacted ~~NERC registered~~ entities whichever is less, identified in the Operating Plan(s) as to their role in the plan(s).	The Transmission Operator did not notify four or more impacted NERC ~~registered entities~~ or more than 15% of the impacted NERC ~~registered entities~~ identified in the Operating Plan(s) as to their role in the plan(s).
R4	Operations Planning	Medium	The Balancing Authority has an Operating Plan but it does not address one of the criteria in Requirement R4.	The Balancing Authority has an Operating Plan but it does not address two of the criteria in Requirement R4.	The Balancing Authority has an Operating Plan but it does not address three of the criteria in Requirement R4.	The Balancing Authority ~~does~~did not have an Operating Plan.
R5	Operations Planning	Medium	The Balancing Authority did not	The Balancing Authority did not	The Balancing Authority did not	The Balancing Authority did not

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			notify one impacted ~~NERC registered~~ entity or 5% or less of the impacted ~~NERC registered~~ entities whichever is less identified in the Operating Plan(s) as to their role in the plan(s).	notify two impacted ~~NERC registered~~ entities or more than 5% and less than or equal to 10% of the impacted ~~NERC registered~~ entities whichever is less, identified in the Operating Plan(s) as to their role in the plan(s).	notify three impacted ~~NERC registered~~ entities or more than 10% and less than or equal to 15% of the impacted ~~NERC registered~~ entities whichever is less, identified in the Operating Plan(s) as to their role in the plan(s).	notify four or more impacted ~~NERC registered~~ entities or more than 15% of the impacted ~~NERC registered~~ entities identified in the Operating Plan(s) as to their role in the plan(s).
R6	Operations Planning	Medium	N/A	N/A	N/A	The Transmission Operator did not provide its Operating Plan(s) for next-day operations as identified in Requirement R2 to its Reliability Coordinator.
R7	Operations Planning	Medium	N/A	N/A	N/A	The Balancing Authority did not provide its Operating Plan(s) for next-day operations as

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
						identified in Requirement R4 to its Reliability Coordinator.

D. Regional Variances

None.

E. Interpretations

None.

F. Associated Documents

~~None.~~

Operating Plan - An Operating Plan includes general Operating Processes and specific Operating Procedures. It may be an overview document which provides a prescription for an Operating Plan for the next-day, or it may be a specific plan to address a specific SOL or IROL exceedance identified in the Operational Planning Analysis (OPA). Consistent with the NERC definition, Operating Plans can be general in nature, or they can be specific plans to address specific reliability issues. The use of the term Operating Plan in the revised TOP/IRO standards allows room for both. An Operating Plan references processes and procedures which are available to the System Operator on a daily basis to allow the operator to reliably address conditions which may arise throughout the day. It is valid for tomorrow, the day after, and the day after that. Operating Plans should be augmented by temporary operating guides which outline prevention/mitigation plans for specific situations which are identified day-to-day in an OPA or a Real-time Assessment (RTA). As the definition in the Glossary of Terms states, a restoration plan is an example of an Operating Plan. It contains all the overarching principles that the System Operator needs to work his/her way through the restoration process. It is not a specific document written for a specific blackout scenario but rather a collection of tools consisting of processes, procedures, and automated software systems that are available to the operator to use in restoring the system. An Operating Plan can in turn be looked upon in a similar manner. It does not contain a prescription for the specific set-up for tomorrow but contains a treatment of all the processes, procedures, and automated software systems that are at the operator's disposal. The existence of an Operating Plan, however, does not preclude the need for creating specific action plans for specific SOL or IROL exceedances identified in the OPA. When a Reliability Coordinator performs an OPA, the analysis may reveal instances of possible SOL or IROL exceedances for pre- or post-Contingency conditions. In these instances, Reliability Coordinators are expected to ensure that there are plans in place to prevent or mitigate those SOLs or IROLs, should those operating conditions be encountered the next day. The Operating Plan may contain a description of the process by which specific prevention or mitigation plans for day-to-day SOL or IROL exceedances identified in the OPA are handled and communicated. This approach could alleviate any potential administrative burden associated with perceived requirements for continual day-to-day updating of "the Operating Plan document" for compliance purposes.