

FAC SDT Discussion

Opening TOP and IRO Standards to Address Entity Comments

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February 13, 2019



PEAKRELIABILITY
assuring the wide area view

Executive Summary

- The Drafting Team for NERC Project 2015-09 would like to open IRO-008-2 and TOP-001-4 to make clarifying modifications to a few requirements to address consistency with proposed FAC-011-4 requirement R6.



Background

- Operational interrelationships exist between standards that reference “SOL exceedance” and FAC standards which describe “SOL exceedance”.
- TOP-001 and IRO-008 contain requirements for what to do when there is SOL exceedance identified in Real-time Assessments and Real-time monitoring:
 - Initiate Operating Plan to mitigate an SOL exceedance identified as part of its Real-time monitoring or RTA (TOP-001-4 R14, IRO-008-2 R5 RC to notify)
 - TOP to inform its RC of actions taken to return the System to within limits when a SOL has been exceeded (TOP-001-4 R15)



Background

- The phrase “SOL exceedance” and “exceeding an SOL” is used in several requirements in the TOP and IRO standards.
- However, there is no NERC Glossary definition of the phrase nor do the standards clearly identify when an SOL exceedance exists.
- The NERC SOL White Paper, which was created as part of the development of the current TOP and IRO standards, describes SOL exceedance concepts and attempts to clarify this understanding. The white paper is now an ERO endorsed Implementation Guidance.
- However, because the SOL White Paper is not a requirement in the standards, several TOPs and RCs have adopted their own internal definition of SOL exceedance.
- Proposed FAC-011-4 requirement R6 takes the concepts from the NERC SOL White Paper and codifies them in the form of a requirement, thereby “firming up” what SOL exceedance can mean and what it cannot mean.
- This “firming up” changes the manner in which certain TOPs and RCs currently log SOL exceedances and document actions taken to mitigate those exceedance for demonstrating compliance.



Example

- Several entities have a market mechanism for addressing any projected post-Contingency issue (SOL exceedance) identified in Real-time Assessments (as part of RTCA).
- If any projected post-Contingency issue identified in Real-time Assessments (as part of RTCA) persists for longer than 30 minutes, the TOP and RC escalate these to perform other actions per the Operating Plan to mitigate.
- For these entities, projected post-Contingency issues identified in Real-time Assessments (as part of RTCA) are considered an “SOL exceedance” only when it persists for longer than 30 minutes.
- This characterization of “SOL exceedance” prevents these TOP and RCs from having to log each and every RTCA issue, document the steps taken in the Operating Plan to mitigate the issue, contact the RC (per TOP-001-4 R15) to describe the steps taken to mitigate the issue, and ensure that all documentation is audit-ready.
- This characterization has no impact on reliability – only for logging and compliance evidence documentation.



Proposed FAC-011 Requirement R6

FAC-011-4 R6 under development:

R6. Each Reliability Coordinator shall include in its SOL Methodology a method for determining SOL exceedances when performing Real-time monitoring, Real-time Assessments, and Operational Planning Analyses, based on the following performance criteria:

6.1. The evaluation of System performance for no Contingencies demonstrates the following: [subparts to follow]

6.2. The evaluation of System performance for the single Contingencies [...] demonstrates the following: [subparts to follow]

- NOTE that FAC-011 R6 requires the RC's SOL Methodology have a method for determining SOL exceedances that include both "no-Contingency" conditions and evaluated "post-Contingency" conditions.



Impacts on TOP-001-4

- Per proposed FAC-011-4 R6, if a TOP's Real-Time Assessment (as part of RTCA) indicates that a Contingency is expected to result in a Facility exceeding its Emergency Rating, an SOL is being exceeded.
- TOP-001-4 requirement R14 and R15 states the following:
 - *R14. Each Transmission Operator shall initiate its Operating Plan to mitigate a SOL exceedance identified as part of its Real-time monitoring or Real-time Assessment.*
 - *R15. Each Transmission Operator shall inform its Reliability Coordinator of actions taken to return the System to within limits when a SOL has been exceeded.*



Undue Burden

- Per these requirements, each time a Real-time Assessment for post-Contingency conditions (as part of RTCA) identifies an “SOL exceedance” per proposed FAC-011-4 requirement R6.2 subparts, the TOP is required to document the steps taken in the Operating Plan to mitigate the issue, contact the RC (per R15) to describe the steps taken to mitigate the issue, and ensure that all documentation is audit-ready.
- Several entities argue that proposed FAC-011-4 requirement R6 creates an undue burden for logging, communicating with the RC, and creating audit-ready compliance documentation.
- They also argue that such a burden diverts the System Operators’ attention from operating the system reliably to performing unnecessary logging and documenting for compliance purposes, which creates an increased reliability risk. It effectively takes their eye off the ball.



SDT Position

- The SDT firmly believes that proposed FAC-011-4 requirement R6 improves reliability by codifying and “firming up” the concepts of SOL exceedance found in the NERC SOL White Paper.
- Proposed FAC-011-4 requirement R6 also maps to the currently effective FAC-011-3 requirement R2 and subparts, so R6 is a critical component of FAC-011-4.
- The SDT agrees that the “firming up” of SOL exceedance in proposed FAC-011-4 requirement R6 would not provide these entities flexibility to retain their current practices for logging and documenting compliance evidence.
- The SDT tried to address this issue in the proposed FAC-011-4; however, the SDT does not think it is appropriate to address TOP logging and compliance burden issues solely through the RC’s SOL Methodology. There must be companion requirements in IRO and TOP.
- Hence, the request to address the issues directly in the impacted requirements in IRO-008-2 and TOP-001-4.



Suggested Changes

The FAC SDT proposes clarifying modifications to the following standards to address the undue burden for documentation and communication:

1. IRO-008-2
 - Requirement R5 and associated measure M5
2. TOP-001-4
 - Measure M14
 - Requirement R15 and associated measure M15
 - Compliance evidence retention for R14



Suggested Changes

IRO-008-2

- R5. Each Reliability Coordinator shall notify impacted Transmission Operators and Balancing Authorities within its Reliability Coordinator Area, and other impacted Reliability Coordinators as indicated in its Operating Plan, when the results of a Real-time Assessment indicate an actual or expected condition that results in, or could result in, a System Operating Limit (SOL) or Interconnection Reliability Operating Limit (IROL) exceedance within its Wide Area.



Suggested Changes

IRO-008-2

- M5. Each Reliability Coordinator shall make available upon request, evidence that it informed impacted Transmission Operators and Balancing Authorities within its Reliability Coordinator Area, and other impacted Reliability Coordinators as indicated in its Operating Plan, of its actual or expected operations that result in, or could result in, a System Operating Limit (SOL) or Interconnection Reliability Operating Limit (IROL) exceedance within its Wide Area. 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. If such a situation has not occurred, the Reliability Coordinator may provide an attestation.



Suggested Changes

TOP-001-4

- M14. Each Transmission Operator shall have evidence that it initiated its Operating Plan for mitigating SOL exceedances identified as part of its Real-time monitoring or Real-time Assessments. This evidence could include but is not limited to dated computer logs showing times the Operating Plan was initiated, dated checklists, or other evidence.



Suggested Changes

TOP-001-4

- R15. Each Transmission Operator shall inform its Reliability Coordinator of actions taken to return the System to within limits when a SOL has been exceeded.
- M15. Each Transmission Operator shall make available evidence that it informed its Reliability Coordinator of actions taken to return the System to within limits when SOL was exceeded. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, or dated computer printouts. If such a situation has not occurred, the Transmission Operator may provide an attestation.



Suggested Changes

C. Compliance

1.2 Evidence Retention

- Each Transmission Operator shall retain evidence and that it initiated its Operating Plan to mitigate a SOL exceedance as specified in Requirement R14 and Measurement M14 for three calendar years.



Questions?

