

PER Industry Feedback Webinar

PER Ad Hoc Group
PER Informational Webinar
April 4, 2013

RELIABILITY | ACCOUNTABILITY



- NERC Antitrust Guidelines

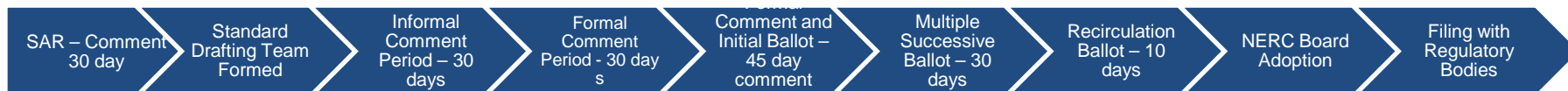
- It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

- Notice of Open Meeting

- Participants are reminded that this webinar is public. The access number was widely distributed. Speakers on the call should keep in mind that the listening audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

- Evolving Standards Process
- Informal outreach
- PER FERC directives
- PER Possible Solutions
- System Operator and System Personnel Clarification
- Suggested definition
- PER suggested applicability
- Certification Clarification
- PER-005-1 suggested changes
- Upcoming key dates
- PER Communication Plan
- PER ad-hoc group contact information

Original Standards Process – multiple years



- February 2012: Board and MRC formed SPIG to address widespread frustration with Standards Development Process.
- May 2012: SPIG submitted a report with recommendations to improve both the timeliness and quality of the standards (NERC Board approved Process Manual changes, February 2013).
- August 2012: Commissioners urged the industry to focus on creating a more efficient standards development process; NERC CEO focused on revamping the standards process for more efficiency and quality.
- November 2012: NERC Board issued a resolution requesting the SPIG, MRC, SC, NERC staff and industry stakeholders to reform its standards development paradigm. Changes were integrated into 2013-15 Reliability Standards Development Plan and SC Strategic Plan.

Evolving Standards Process – one year



- Goals of the ad hoc group during informal development
 - Work with industry SME's to identify suggested modifications
 - Address FERC directives associated with each project
 - Develop SAR and first draft of pro forma standard **based on industry comments** and a pro forma RSAW
 - VRF and VSL
 - Implementation plan
- Other informal development projects
 - MOD A (MOD-001, -004, -008, -028, -029 and -030)
 - MOD B (MOD-010 – MOD-015)
 - MOD C (MOD-016 – MOD-021)
 - PER (PER-002 and PER-005)
 - VAR (VAR-001 and VAR-002)

- Five FERC Directives to the ERO
 - Order 693
 - *Develop specific Requirements addressing the scope, content and duration appropriate for generator operator personnel.*
 - *Include in PER-002-0, personnel who:*
 - *carry out outage coordination and assessments in accordance with IRO-004-1 and TOP-002-2*
 - *determine SOLs and IROLs or operating nomograms in accordance with IRO-005-1 and TOP-004-0.*
 - *Consider through the Reliability Standards development process, whether personnel that perform functions having an impact on the reliability of the BES, should be included in mandatory training pursuant to PER-002-0.*
 - *Personnel responsible for ensuring that critical reliability applications of the EMS, such as state estimator, contingency analysis and alarm processing packages, are available, up-to-date in terms of system data and produce useable results.*

- FERC Order 742
 - *Direct NERC to consider the necessity of developing a similar implementation plan with respect to PER-005-1, Requirement R3.1. (simulation technology)*
 - *Direct NERC to develop a definition of “local transmission control center” in the standards development project for developing the training requirements for local transmission control center operator personnel.*

- New Standard
- Revised Standard
- Guideline – must be supported with technical justification as to why a standard will not be created

- System Operator (Project 2010-16 Glossary Definition) – Project tasked to the PER ad hoc group to identify applicability for specific TOPs and GOPs
 - Influenced by the organization of the industry prior to electric industry restructuring, separation of functions under FERC order 889, and the development of the Functional Model
- System Personnel includes System Operators and additional personnel for applicability to the PER-005 standard only
 - PER-005 does not require certification ([PER-003](#))

Glossary of Terms Definition:

System Operator: An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator) whose responsibility it is to monitor and control that electric system in real time.

*Control Center: One or more facilities hosting operating personnel that monitor and control the Bulk Electric System (BES) in real-time to perform the reliability tasks, including their associated data centers, of: 1) a Reliability Coordinator, 2) a Balancing Authority, 3) a Transmission Operator for transmission Facilities at two or more locations, or 4) a Generator Operator for generation Facilities at two or more locations.

Suggested Change:

System Operator: An individual at a Control Center* whose responsibility it is to monitor or control the Bulk Electric System in real time.

- **Applicability**
 - **Functional Entities:** For the purpose of the requirements contained herein, the following list of functional entities will be collectively referred to as “Responsible Entities.” For requirements in this standard where a specific functional entity or subset of functional entities are the applicable entity or entities, the functional entity or entities are specified explicitly.
 - **Reliability Coordinator**
 - **Balancing Authority**
 - **Transmission Operator**
 - **Transmission Owner** that has personnel exercising control over its portion of the Bulk Electric System that is under the supervision of the personnel of the registered Transmission Operator. This supervision may take the form of directing specific step-by-step instructions and at other times may take the form of the implementation of predefined operating procedures. (FERC Order 742 P. 64)
 - **Generator Operator**

- System Personnel

- Reliability Coordinator, Transmission Operator, Transmission Owner (as defined in Applicability Section) and Balancing Authority System Operators and **personnel who are responsible for the real-time monitoring or controlling of the Bulk Electric System, conducting next-day reliability assessments or unplanned outage coordination.** (FERC order 693 P.1372)
- Reliability Coordinator, Transmission Operator, Transmission Owner (as defined in Applicability Section) and Balancing Authority operations support **personnel who are responsible for ensuring that critical reliability applications of the EMS, such as state estimator, contingency analysis and alarm processing packages, are available, up-to-date in terms of system data and produce useable results that can also have an impact on the reliable operation of the Bulk Electric System.** (FERC order 693 P.1373)
- Generator Operator whose dispatchers (at a centrally-located generation dispatch center or at a dispatch center at the same site as a single generation plant) either: (i) receive direction and then develop specific dispatch instructions for plant operators under their control or (ii) determine the optimal dispatch of the generation from its portfolio of units. (FERC order 693 P.1363)

- The PER-005 standard has nothing to do with certification
 - See PER-003-1 [Operating Personnel Credentials](#)
 - Applicability: RC, TOP, and BA
 - GOP's do not need to be certified

- Each Reliability Coordinator, Balancing Authority and Transmission Operator that has operational authority or control over a Facility with an established IROL or has established operating guides or protection systems to mitigate IROL violations shall provide its System Operator(s) with training that includes the use of simulation technology that replicates the operational behavior of the BES during normal and emergency conditions. Simulation technology can include, but is not limited to, a simulator, virtual technology or future technology.
 - Each Reliability Coordinator, Balancing Authority and Transmission Operator that gains operational authority or control over a Facility with an established IROL or establishes operating guides or protection systems to mitigate IROL violations shall comply with the above within 6 months of gaining that authority or establishing such operating guides or protection systems.

- Each Responsible Entity shall verify the capabilities of each of its system personnel identified to perform each assigned task.
 - Within six months of the addition of a new task or a modification of any of the tasks identified, each Responsible Entity shall verify the capabilities of each of its system personnel to perform the new or modified tasks.

- Each Responsible Entity shall use and implement a systematic approach to training to establish training program requirements for its system personnel
 - Each Responsible Entity shall create a list of BES company-specific reliability-related tasks performed by its system personnel.
 - Each Responsible Entity shall identify company-specific tasks that are directly related to the tasks identified in the above performed by its system personnel other than System Operators.
 - Each Responsible Entity shall update its task lists identified in above closed circle bullet and the above open circle bullet at least each calendar year to identify new or modified tasks for inclusion in training.

- Each Responsible Entity shall design and develop learning objectives and training materials based on the task list created in Each Responsible Entity shall create a list of BES company-specific real time reliability-related tasks performed by its system personnel and Each Responsible Entity shall identify company-specific tasks that are directly related to the tasks identified in the above performed by system personnel other than System Operators.
- Each Responsible Entity shall deliver the training established in the above.
- Each Responsible Entity shall conduct an evaluation each calendar year of the training program established in R1, to identify any needed changes to the training program and shall implement the changes identified.

- Key Dates
 - May 2, 2013 – Posting of the SAR, pro forma standard and pro forma RSAW for 30 day comment
 - July 26, 2013 – Initial ballot posting: Standard and RSAW for 45 day comment
 - October 24, 2013 – Recirculation Ballot
 - November 7, 2013 – Board of Trustees Adoption
 - December 31, 2013 – File with FERC

Date	Event	Location
March 1	FRCC OC Conference Call	Conference Call
March 5-6	NERC OC, PC, and CIPC Meetings	Albuquerque, NM
March 5-6	SPP Compliance Workshop	Dallas, TX
March 7-8	NERC SC Meeting	Albuquerque, NM
March 11-13	FRCC Compliance Workshop	Tampa, FL
March 12	NATF	Conference Call
March 12-14	SERC Standing Committees	Charlotte, NC
March 13	PCGC and PS Conference Call	Conference Call
March 15	Informal Introduction to PER—005-1 Standard and process	Webinar
March 19	Trades	D.C.
March 19-20	FRCC OC	Conference Call
March 19-21	NERC Standards and Compliance Workshop	St. Louis, MO
March ?	Regions (Standards, Compliance, enforcement and regional presidents)	Conference call or Atlanta Meeting
March	Internal Controls Group – Transmission Forum	Conference Call
March 20-21	California Electric Training Advisory Committee	Sacramento, CA
March 21	MISO AFCWG	Conference Call
March 25	Standards Discussion Forum (NSRS)	Conference Call
March 26-28	WECC Standing Committees	Salt Lake City, UT
March 26-28	<i>Reliability First</i> Reliability Workshop	Columbus, OH
March 27-28	NERC Improving Human Performance Workshop	Atlanta, GA

Date	Event	Location
April 2	NERC Trades Meeting	Washington, DC
April 4	PER Industry Webinar	Webinar
April 5	CIPCEC Conference Call	Webinar
April 8	OCEC Conference Call	Webinar

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