

## Standards Authorization Request Form

When completed, please email this form to:  
[sarcomm@nerc.com](mailto:sarcomm@nerc.com)

NERC welcomes suggestions to improve the reliability of the bulk power system through improved reliability standards. Please use this form to submit your request to propose a new or a revision to a NERC's Reliability Standard.

### Request to propose a new or a revision to a Reliability Standard

Title of Proposed Standard:	Operations Personnel Training
Date Submitted:	Revised: September 25, 2013 Original: July 18, 2013

### SAR Requester Information

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### SAR Type (Check as many as applicable)

<input type="checkbox"/> New Standard	<input type="checkbox"/> Withdrawal of existing Standard
<input checked="" type="checkbox"/> Revision to existing Standard	<input type="checkbox"/> Urgent Action

### SAR Information

#### Industry Need (What is the industry problem this request is trying to solve?):

Address outstanding FERC directives, modify System Operator definition (project 2010-16), and incorporate ERO initiatives, including drafting results-based or performance-based standards that are consistent with Paragraph 81 criteria.

## SAR Information

Purpose or Goal (How does this request propose to address the problem described above?):

- Modify System Operator Definition (Project 2010-16).
- Define applicable entities to address outstanding FERC Directives from Order No. 693 and Order No. 742.
- Modify existing PER-005-1 requirements for additional applicable entities and personnel.
- Remove the requirement to provide at least 32 hours of emergency operations training from Requirement R3 of PER-005-1 as it no longer meets criteria set forth in the standard for utilizing a systematic approach to training. The appropriate amount of such training should be determined by the applicable entities through the analysis phase of a systematic approach to training and outlined in a continuous education section of their training program. Any additional hours may be duplicative or repetitive for the entity in providing training to their personnel.

Brief Description (Provide a paragraph that describes the scope of this standard action.)

This project will address the following FERC directives. In addition, the project will review the present standard to eliminate ambiguity within the standard.

1. This SAR is needed to address outstanding FERC Directives from Order No. 693 and Order No. 742. The following is a summary of the FERC Directives to the ERO:
  - “Develop specific Requirements addressing the scope, content and duration appropriate for generator operator personnel.” Order No. 693 at P 1363.  
 A new requirement has been suggested to address Generator Operator personnel at a centrally located dispatch center who receive direction from their Reliability Coordinator, Balancing Authority, Transmission Operator, or Transmission Owner and may develop specific dispatch instructions for plant operators under their control. Personnel at a centrally located dispatch center who relay dispatch instructions, without making any modifications, are excluded.
  - “Include [operations support personnel] who carry out outage coordination and assessments in accordance with IRO-004-1 and TOP-002-2 and determine SOLs and IROLs or operating nomograms in accordance with IRO-005-1 and TOP-004-0.” Order No. 693 at P 1372.  
 A new requirement has been suggested to address operation support and support staff personnel for training. The term Operations Support Personnel has been defined solely for the revised PER-005-1 standard.
  - Consider whether personnel responsible for ensuring that critical reliability applications

SAR Information

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 should be included in a mandatory training standard. Order No. 693 at P 1373.

The team considered whether there is technical justification for including EMS personnel in the standard.

- Consider the necessity of developing a similar implementation plan with respect to PER-005-1, Requirement R3.1 addressing simulation technology. Order No. 693 at P 1390-1391 and Order No. 742 at P 55.
- Expand the applicability of PER-005 to include training requirements for local transmission control center” operator personnel and define the term “local transmission control center.” Order No. 693 at P 1343; Order No. 742 at P 64.

The team thought it would be a better path to define local transmission control center through extending the applicability to Transmission Owners versus creating a new term for the NERC Glossary. Transmission Owner in the PER standard is defined as “Personnel at a facility, excluding field switching personnel, who act independently to carry out tasks that require Real-time operation of the Bulk Electric System including protecting assets, protecting personnel safety, adhering to regulatory requirements and establishing stable islands during system restoration .” Transmission Owner has been added to all the requirements of the suggested revised PER-005-1 standard.

2. Revise definition of System Operator in glossary of terms to address industry concerns for clarity based on Project 2010-16.
3. Implement Paragraph 81 criteria by identifying Reliability Standards requirements that either: (a) provide little protection to the BES; (b) are unnecessary or (c) are redundant.

Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR. Also provide a justification for the development or revision of the standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the standard action.)

Detailed description of this project can be found in the Technical White Paper included with the initial SAR posting.

Reliability Functions

**Reliability Functions**

The Standard will Apply to the Following Functions (Check each one that applies.)

<input type="checkbox"/> Regional Reliability Organization	Conducts the regional activities related to planning and operations, and coordinates activities of Responsible Entities to secure the reliability of the Bulk Electric System within the region and adjacent regions.
<input checked="" type="checkbox"/> Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
<input checked="" type="checkbox"/> Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input type="checkbox"/> Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input type="checkbox"/> Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/> Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input type="checkbox"/> Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input type="checkbox"/> Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input checked="" type="checkbox"/> Transmission Owner	Owns and maintains transmission facilities.
<input checked="" type="checkbox"/> Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input type="checkbox"/> Distribution Provider	Delivers electrical energy to the End-use customer.
<input type="checkbox"/> Generator Owner	Owns and maintains generation facilities.
<input checked="" type="checkbox"/> Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/> Purchasing-Selling	Purchases or sells energy, capacity, and necessary reliability-related

Reliability Functions	
Entity	services as required.
<input type="checkbox"/> Market Operator	Interface point for reliability functions with commercial functions.
<input type="checkbox"/> Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

**Reliability and Market Interface Principles**

Applicable Reliability Principles (Check all that apply).

<input checked="" type="checkbox"/>	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input checked="" type="checkbox"/>	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
<input checked="" type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.

Does the proposed Standard comply with all of the following Market Interface Principles?	Enter (yes/no)
1. A reliability standard shall not give any market participant an unfair competitive advantage.	Yes
2. A reliability standard shall neither mandate nor prohibit any specific market structure.	Yes
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard.	Yes
4. A reliability standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to	Yes

**Reliability and Market Interface Principles**

access commercially non-sensitive information that is required for compliance with reliability standards.

**Related Standards**

Standard No.	Explanation

**Related SARs**

SAR ID	Explanation

**Regional Variances**

Region	Explanation
ERCOT	None
FRCC	None
MRO	None
NPCC	None
RFC	None
SERC	None

Regional Variances

SPP	None
WECC	None