

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**Petition of the North American Electric  
Reliability Corporation for Approval of  
Proposed Reliability Standard PER-005-2  
and Retirement of Reliability Standard  
PER-005-1**

**Docket No. RD14-7-000**

**JOINT MOTION TO INTERVENE AND COMMENTS OF CALIFORNIA  
INDEPENDENT SYSTEM OPERATOR CORPORATION; ELECTRIC RELIABILITY  
COUNCIL OF TEXAS, INC.; INDEPENDENT ELECTRICITY SYSTEM OPERATOR;  
ISO NEW ENGLAND INC.; MIDCONTINENT INDEPENDENT SYSTEM OPERATOR,  
INC.; NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.; AND SOUTHWEST  
POWER POOL, INC.**

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (the “Commission”), 18 C.F.R. §§ 385.212 and 214 (2013), California Independent System Operator Corporation, Electric Reliability Council of Texas, Inc., Independent Electricity System Operator, ISO New England Inc., Midcontinent Independent System Operator, Inc., New York Independent System Operator, Inc., and Southwest Power Pool, Inc. (the “ISO/RTO Commenters”) move to intervene in the above-captioned proceeding, and submit these supporting joint comments in response to the petition of the North American Electric Reliability Corporation (“NERC”), filed March 7, 2014, for the approval of Reliability Standard PER-005-2 - Operations Personnel Training (the “PER Standard”), and the retirement of Reliability Standard PER-005-1 (the “Petition”).

Reliability Standard PER-005-1 was intended to serve “the important reliability goal of helping to ensure that System Operators performing Real-time, reliability-related tasks on the [Bulk Electric System (“BES”)] are adequately trained to competently perform those tasks and

reliably operate the BES.”<sup>1</sup> The purpose of the proposed revision (Reliability Standard PER005-2) is to “improve upon PER-005-1 by expanding the scope of the Reliability Standard to include training requirements” for additional types of personnel.<sup>2</sup>

## I. COMMUNICATIONS

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<sup>1</sup> Petition at 2.

<sup>2</sup> Petition at 3.

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## II. MOTION TO INTERVENE

The ISO/RTO Commenters move to intervene in this proceeding, as the roles they perform with regard to the Bulk Electric System may be implicated by this Petition and the proposed Reliability Standard.

## III. BACKGROUND AND COMMENTS

The ISO/RTO Commenters supports adoption of the PER Standard as drafted, for a number of reasons.

First, the scope of personnel subject to the training requirements reasonably identifies individuals who may affect real-time system operations/reliability. For the Reliability Coordinator (“RC”), Balancing Authority (“BA”) and Transmission Operator (“TOP”) functions, the scope of personnel includes System Operators and Operations Support Personnel.<sup>3</sup> For

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<sup>3</sup> See proposed Reliability Standard PER-005-2, Requirements R1 and R5.

Transmission Owners (“TOs”) and Generator Operators (“GOPs”), the scope of personnel includes those whose duties include specific real-time operations-related tasks (as described in the proposed standard).<sup>4</sup>

Second, the scope of the training obligations under the PER Standard is also reasonable. The standard requires each relevant entity to implement a systematic approach to training for pertinent individuals. In addition, the PER Standard explicitly states that each functional entity must design and develop training materials according to its training program.<sup>5</sup> Such training relates to the real-time reliability tasks identified by the applicable functional entity.<sup>6</sup> This approach appropriately gives the functional entity the discretion to scope its training based on the particular processes and procedures utilized by that entity in the administration of its real-time operations-related functions. It also allows the functional entity to establish procedures for training different types of personnel (*i.e.*, System Operators and Operations Support Personnel). The functional entities are in the best position to understand their relationship to real-time operations and reliability; consequently, they should have the discretion to develop the scope and implementation procedures for this standard.

With respect to the RC, BA and TOP functional entities’ training obligations for System Operators and Operations Support Personnel, the ISO/RTO Commenters support the different scope of training for support personnel - *i.e.*, they only need to be trained on how their jobs impact the company-specific real-time reliability-related tasks.<sup>7</sup> This distinction is appropriate because support personnel do not actually perform real-time reliability-related tasks, and

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<sup>4</sup> See proposed Reliability Standard PER-005-2, Applicability Sections 4.1.4.1 and 4.1.5.1.

<sup>5</sup> See proposed Reliability Standard PER-005-2, Requirements R1.2 and R2.2.

<sup>6</sup> See proposed Reliability Standard PER-005-2, Requirements R1, R2, R5 and R6.

<sup>7</sup> Compare Requirement R1 (for System Operators) with Requirement R5 (for Operations Support Personnel).

therefore do not require the same level/type of training as System Operators. Indeed, the PER Standard also encompasses discretion on the part of the functional entities to “identif[y]”<sup>8</sup> which personnel fall within the definition of Operations Support Personnel and therefore require training pursuant to the PER Standard; this is reasonable and recognizes that functional entities are in the best position to make that identification. In its order, the Commission should confirm that functional entities have the discretion to make that identification.

Third, the proposed standard (in Requirement R3) requires each relevant functional entity to verify at least initially the capabilities of its personnel. This requirement reasonably verifies the performance capabilities of personnel to perform company-specific real-time reliability-related tasks. It provides a level of assurance that each entity is adequately staffed to perform its relevant real-time functions. Risks related to human performance can never be fully mitigated, but verification provides a modicum of assurance that personnel are qualified for their positions. With respect to the frequency of verification under the standard, setting the floor at a one-time verification is appropriate. Entities then have discretion to apply verification processes more frequently based on their particular needs, which may vary based on several factors - *e.g.*, the functions they perform, their training programs, work schedules, and years of experience of relevant personnel. The relevant requirement also requires re-verification within six months anytime there is a new or modified real-time reliability-related task. Re-verification under these circumstances is reasonable.

Fourth, the proposed standard requires specific training requirements for RC, BA, TOP and TO personnel that are involved with the operation of facilities that either have an

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<sup>8</sup> See proposed Reliability Standard PER-005-2, Requirement R5.

Interconnection Reliability Operating Limit (“IROL”), or are used to mitigate an IROL.<sup>9</sup> In particular, the proposed standard requires some type of simulation-based training. Providing a general obligation of simulation-based training reasonably leaves the specific type of simulation training to the functional entity, is appropriate. The relevant functional entities are in the best position to understand their functions and related processes and procedures used to execute those functions, and, accordingly, are in the best position to develop the most effective simulation training for personnel involved in operational actions that could impact an IROL.

Finally, the ISO/RTO Commenters support NERC’s conclusion that personnel who support Energy Management Systems (“EMS”) applications should not be included at this time in the training requirements enunciated in the PER Standard. By way of background, the Commission approved Reliability Standards PER-005-1 and PER-004-2 in Order No. 742,<sup>10</sup> but NERC had yet to consider “whether personnel who support EMS applications should be included in mandatory training requirements.”<sup>11</sup> As indicated in the Petition, the NERC standard drafting team “determined, based on research conducted by the NERC Operating Committee’s Event Analysis Subcommittee, that there was insufficient evidence at this time to warrant an extension of the mandatory training requirements to personnel that support EMS applications,” but NERC would “continue to assess the need for mandatory training of these personnel.”<sup>12</sup>

As explained by NERC, “the Event Analysis Subcommittee reviewed the reportable events in NERC’s Event Analysis database to determine whether there was any evidence demonstrating a need to include EMS support personnel in NERC’s mandatory training

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<sup>9</sup> See proposed Reliability Standard PER-005-2, Requirement R4.

<sup>10</sup> Petition at 11, citing *System Personnel Training Reliability Standards*, Order No. 742, 133 FERC ¶ 61,159 at P 1 (2010) (“Order No. 742”).

<sup>11</sup> Petition at 11.

<sup>12</sup> Petition at 19.

Reliability Standard.”<sup>13</sup> In particular, the Subcommittee queried the Event Analysis database of 208 cause-coded reportable events for those cause codes that pertained to human error or lack of training. Of the 10 events to which human error or lack of training was a contributing factor, six were related to loss of EMS or Supervisory Control and Data Acquisition (“SCADA”) applications. Out of those six events, only two were deemed to be due to a lack of training.<sup>14</sup> For this reason, the Event Analysis Subcommittee concluded that with respect to EMS support personnel, “the evidence does not support a need for such personnel to be trained under Reliability Standard PER-005.”<sup>15</sup> As indicated, NERC relied on this research in the draft of the PER Standard. The ISO/RTO Commenters support this conclusion, which is consistent with its members’ own experience.

For the above reasons, the ISO/RTO Commenters believe the PER Standard is reasonable with respect to its goal of supporting real-time system operations and reliability. Accordingly, the Commission should approve the standard as filed by NERC.

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<sup>13</sup> Petition at 31.

<sup>14</sup> Petition at 31-32.

<sup>15</sup> Petition at 32.

#### IV. CONCLUSION

The ISO/RTO Commenters respectfully request that the Commission approve the PER Standard as filed.

Respectfully submitted,

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Dated: April 11, 2014

## **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in these proceedings.

Dated at Washington, D.C. this 11th day of April, 2014.

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