Manual 40 Changes for 2015
• Miscellaneous edits to correct grammar, spelling and formatting throughout the document

• A few wording changes to clarify concepts
  • Not affecting intent, application or requirements
  • “System Operator” changed to “Operator” throughout the document to reflect NERC definition
• Section 1 – Training Overview
  • Section 1.4 – Analysis
    • Sub-Section 1.4.4 – Task List Maintenance
      • Changed the description of the process around the review of the Transmission Owner Operator and Generation Operator Task Lists
      • Previously described the old method of reviewing a sub-set of each task list at each monthly DTS meeting
      • Revised to reflect the existing method of members individually performing reviews via the company account in the LMS.
      • Then PJM compiles comments / suggestions and brings up at the DTS meeting
      • Allows for more formal documentation of Member participation in the process
1.4.4 Task List Maintenance (revised)

Each month Member company representatives are provided the opportunity to review and comment on both the Transmission Owner Operator Task List and the Generation Operator Task List via the PJM LMS. Any comments received are compiled and either brought to the DTS for general discussion or resolved with the submitter. In addition, a standing agenda item at DTS meetings is the ongoing opportunity to review of the tasks lists and identify any items which should be changed or tasks which should be added, with particular attention paid to the lists of those operating entities that have reliability-related tasks (either common PJM terminal tasks or company specific tasks). So that a meaningful analysis may take place, only a subset of these tasks are reviewed at each meeting, focusing on those that may be affected by changing operating criteria. PJM manages this review to ensure all reliability-related tasks are reviewed at least annually. In addition, As part of this annual review, the DTS also reviews and performs an annual review of any task(s) that an individual Member may have “opted-out” of (see section 1.5) in order to verify that the exclusion of that said task(s) is still valid.
• Section 1 – Training Overview
  • Section 1.4 – Analysis
    • Sub-Section 1.4.5 – Task Modification
      • Clarified that PJM (DTS) determines when a Terminal Task is to be added or modified
      • Clarified that the Member Company (in coordination with PJM) determines when a Company-Specific Task must be added or modified
      • Added a reference to Section 1.5 which describes the task verification / re-verification process
1.4.5 Task Modification

For shared terminal tasks, the DTS determines if an existing, reliability-related task has been changed significantly, or if a new task is identified, which will require actions related to re-training and task re-verification. The task verification process is discussed in Section 1.5.

For company-specific tasks, the compliance, training, and operations staff at the affected entity – in conjunction with PJM compliance, training, and operations groups – should determine whether the change constitutes a necessity to re-verify the task, and notify PJM State & Member Training of that determination.

Re-verification of both terminal and company specific tasks are tracked in the PJM LMS. The complete task verification process is discussed in Section 1.5.
Section 1 – Training Overview

Section 1.4 – Analysis

Added new Sub-Section 1.4.6 – Task List Maintenance

- Documented that participation in PJM’s SAT process is required of all Transmission Owners by NERC PER-005 requirements and the PJM TO/TOP Matrix
- Referenced that TO participation in the process will be tracked in the PJM LMS
  - Review of Task Lists (Existing)
  - Review of their own Training Programs (new)*
  - Review of PJM Training Program (new)*

* more on the specifics of these later in the presentation
1.4.6 DTS Participation in the PJM SAT process

Transmission Owners are required by the PJM TO/TOP Matrix to actively participate in the PJM SAT process, to ensure compliance with NERC PER standard requirements. Members document their participation through the PJM LMS. has defined their desired level of participation as follows:
Section 1 – Training Overview
  Section 1.5 – Evaluation of Program Activities
    Sub-Section 1.5.1 – Tasks and Objectives
      Added additional wording to specify that forms relating to the documentation of learning activities delivered by the members can be found on the Training Liaison section of the PJM Training Website
1.5.1 Tasks and Objectives *(New wording added)*

These additional learning objectives are for training development only and are not subject to the requirements of PER-005 and those outlined in this manual. This is to preserve the elements of the Task List at the proper level so as to maintain the clarity necessary for the ongoing implementation and evaluation of the overall programs. While Members may choose to create and use these more detailed Learning Activity Objectives as part of their training materials, PJM will not require that these lower level details are documented in the PJM LMS, but only the Learning Activity’s linkages to the source elements found on the Task List. *(Forms and other information related to documenting Learning Activities can be found on the Member Training Liaison website.)*
Section 1 – Training Overview

Section 1.7 – Evaluation of Program Activities

- Added wording to the text box to specify that the evaluations of program activities (both those of the Member and those of PJM) will be done via the LMS.
PJM, in conjunction with the DTS, performs at least one formal evaluation of the initial and continuing training program annually.

Each Member is also required to perform and document with PJM an annual evaluation of its portion of the training programs.

These evaluations are managed and documented through the PJM LMS.
Section 2 – Certification Overview

Section 2.3 - Term of Certification

- Removed wording related to 5-year certifications
  - There are no 5-year PJM Certifications remaining, they have all been converted to 3-year Certifications

2.3 Term of Certification

PJM System Operator certificates issued prior to 7/1/2009 are valid for five years, all new certificates are valid for three years.
Section 2 – Certification Overview

Section 2.3 - Term of Certification

Subsection 2.3.1 – Recertification

- Removed wording related to renewing a 5-year certification
- Added a “hardship clause” to permit extending the time to renew the 3-year certification
  - Cases will be reviewed individually
  - Operator will not be allowed to take the desk independently until they have completed re-certification
  - Original re-certification date will not change
  - Similar to the NERC process for granting extensions
2.3.1 – Recertification *(revised wording)*

2. Continuing Education Hours (CE Hours)

For a five year PJM certificate, on a rolling five year basis, complete at least 200 hours of NERC approved CE training related to the PJM credential which has been recorded in the PJM Learning Management System (LMS). Those who fail to get credit for 200 continuing training hours per five year period must apply for, take, and pass the appropriate PJM exam before their current PJM certificate expires.

For a three year PJM certificate, on a rolling three year basis, complete at least 140 hours of NERC approved CE training related to the PJM credential which has been recorded in the PJM (LMS). In addition, of the 140 CE hours required to renew, 30 CE hours must be approved for the category of Simulation. If an operator has more than the required 140 CE hours at the time of the request for renewal, PJM will allow up to 30 CE hours to be carried over to the next 3 year period. No hours will be carried over in any of the CE category classifications (e.g., Simulation, Standards, or EOP hours). Those who fail to get credit for 140 CE hours, of which 30 CE hours must be for Simulation, must apply for, take, and pass the appropriate PJM exam before their current certificate expires.
Specific requirements for maintaining a PJM certification are outlined in Section 3 of this manual. Failure to renew an operator certification prior to the expiration date of the credential will be subject to the compliance monitoring process described in Section 3.3. Mitigation plans developed to address such lapses in certification will be reviewed on a case-by-case basis and may include remedial actions such as supplemental training activities or retesting. Please note that an operator with an expired PJM certification may not take independent action on the PJM system.
Section 3 – Member Training & Certification Requirements

Section 3.2 – Entity Training and Certification Requirements

Sub-Section 3.2.1 – Transmission Owner Operators

Initial Training - Removed references to “FOTO” to allow us to be more adaptive when designing training programs

3.2.1 Transmission Owner System Operators

Transmission Owner (TO) System Operators are defined as system operators who participate in the real time operations of the PJM system by operating local transmission facilities and performing other transmission-related real time duties as found on the PJM Transmission Owner (TO) Operator Task List of a TO.

Initial Training:

Effective 4/1/2013 newly hired TO System Operators must successfully complete the following PJM sponsored initial training program courses prior to independently participating in real time operations:

- The “Fundamentals of Transmission Operations” course (either online or in-person)
• Section 3 – Member Training & Certification Requirements
  • Section 3.2 – Entity Training and Certification Requirements
    • Sub-Section 3.2.1 – Transmission Owner Operators
      • Task Verification –
        • Removed references to 2013 implementation date
        • Combined and clarified requirement for an operator to complete the task verifications prior to operating independently
Sub-Section 3.2.1 – Transmission Owner Operators - Task Verification (revised wording)

Task Verification:

As required by Requirement 2 of NERC Standard PER-005, effective 4/1/2013 each TO must verify the capability of each TO System Operator to perform each applicable reliability-related task contained within their Task List at least one time. This verification must be completed prior to the new TO Operator assuming independent shift duties. For more detailed information about the verification process, refer to Section 1.5.4 of this manual.

Effective 4/1/2013, TOs must verify the capability of a new TO System Operator prior to the operator working independently on the PJM system.
Section 3 – Member Training & Certification Requirements
  Section 3.2 – Entity Training and Certification Requirements
    Section 3.2.2 – Market Operations Center Operators
      Changed “dispatchers” to “operators” throughout this section
      Added references to GO Task List
      Added wording to expand definition of Generation Operator
Section 3.2.2 – Market Operations Center Operators (revised wording)

3.2.2 Market Operation Center Generation Dispatchers Operators

Market Operation Center (MOC) Generation Dispatchers Operators are defined as dispatchers operators who participate in the real time operations of the PJM system by dispatching generation and performing other generation-related real time duties found on the PJM Generation Operator Task List. In some cases, personnel responsible for these tasks are at locations other than a traditional MOC.
• Section 3 – Member Training & Certification Requirements
  • Section 3.2 – Entity Training and Certification Requirements
    • Sub Section 3.2.2 – Market Operations Center Operators
      • Initial Training -Removed references to the Gen/Ops Series to allow us to be more adaptive when designing training programs

Initial Training:

Effective 4/1/2013 Newly hired MOC Generation Dispatchers Operators must successfully complete the following PJM sponsored initial training program training courses within one year of participating in real time operations: Generation 101, Generation 201, Generation 301 and Operations 101 course series.
Section 3 – Member Training & Certification Requirements
  • Section 3.2 – Entity Training and Certification Requirements
    • Sub Section 3.2.2 – Market Operations Center Operators
      • PJM Generation Certification
        • Added wording to specify that a Generation Operator whose Certification expires may not take independent action on the PJM System

If an MOC-Generation Operator allows his/her PJM certification to expire, he/she may not take independent action on the PJM system until such time that he/she successfully renews the credential.
Section 3 – Member Training & Certification Requirements
  Section 3.2 – Entity Training and Certification Requirements
    Section 3.2.3 – Transmission and Generation Operators
      Added references to the Transmission Owner and Generation Operator Task Lists
• Section 3 – Member Training & Certification Requirements
  • Section 3.2 – Entity Training and Certification Requirements
    • Section 3.2.3 – Transmission and Generation Operators
      • Task verification
        • Consolidated and clarified that Task verifications of the Transmission Owner Operator
          Task List must be completed prior to the operator assuming independent shift duties
Section 3.2.3 – Transmission and Generation Operators – Task Verification (revised wording)

Task Verification:

As required by Requirement 2 of NERC Standard PER-005, effective 4/1/2013 each TO must verify the capability of each Transmission and Generation System Operator to perform each applicable reliability-related task contained within their Task List at least one time. This verification must be completed prior to the new Transmission and Generation Operator assuming independent shift duties. For more detailed information about the verification process, refer to Section 1.5.4 of this manual.

Effective 4/1/2013, TOs will verify the capability of a new Transmission and Generation System Operator prior to the operator working independently on the PJM system.
Section 3 – Member Training & Certification Requirements
  Section 3.2 – Entity Training and Certification Requirements
    Section 3.2.4 – Small Generation Plant Operators
      Changed requirement for this classification to match new NERC BES definitions
      Added specific wording to clarify that if a request for exemption is denied, the entity must comply with the requirements of a Generation Operator
Section 3.2.4 – Small Generation Plant Operators (revised wording)

Small Generation Plant Operators are defined as operators who participate in the real time operations of facilities for a company that has applied for and received exemption from the PJM Generation Certification requirement that meet the requirements for this classification. To be eligible for the Small Generation Exemption Plant Operator classification, the company dispatching entity must meet all of the following criteria:

1. Operates/dispatches a total of 75 MW or less of generation (nameplate capacity) within the PJM markets

2. Does not actively participate in the Regulation or Synchronized Reserve markets

3. Does not operate a Black-start unit

4. Does not operate units identified as NERC CIP critical assets

5. Does not operate BES facilities, using the NERC definition of a BES facility
Requests for this exemption-classification should be sent to TrainingSupport@pjm.com.

PJM will review all requests for this classification and notify the entity of its classification status. If the request for Small Generation Plant Operator classification is denied, the entity is subject to the training and certification requirements outlined in section 3.2.2 of this manual. If an entity is approved as a Small Generation Plant Operator, the following requirements apply: While exempt from the PJM Certification requirement, Small Generation Plant Operators still have training requirements.

Note: Exemption from the PJM Certification requirement does NOT exempt that company from any other PJM requirements.
Section 3 – Member Training & Certification Requirements
  Section 3.2 – Entity Training and Certification Requirements
    Sub Section 3.2.4 – Small Generation Plant Operators
      Initial Training
      Removed references to the Gen/Ops Series to allow us to be more adaptive when designing training programs

Initial Training:

Small Generation Plant Operators must successfully complete the following PJM sponsored initial training courses-program within one year of participating in real time operations: Generation 101, Generation 201 and Operations 101 course series. Specific content covered in these courses may be adjusted based on the training needs of the individual company.
Section 4 – PJM Operator Training

- Added new section 4.11 on Training of Operations Support Personnel in accordance with PER-005-2
- Renumbered section 4.11 PJM Human Performance Program to section 4.12 and made minor edits
- Changed Near Miss program to Good Catch program
- Added Section 4.12.4 on Human Performance Oversight Group
- These changes only affect PJM
Resources and References

  Awaiting public posting