

PJM Transmission Owner/Transmission Operator Reliability Audit Program

**Revision: 08
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**Prepared by:
NERC Compliance
Department**

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1. Purpose

PJM Interconnection, LLC (PJM) is the registered Transmission Operator (TOP) with the exception¹ of a few facilities in its footprint. PJM, as the TOP, relies on the Transmission Owners (Member TOs) in its region to perform certain reliability tasks. The purpose of the PJM Transmission Owner/Transmission Operator (TO/TOP) Reliability Audit Program is to verify that the Member TOs satisfactorily perform the reliability tasks that are shared with or assigned to the Member TO by PJM, as outlined in the latest approved version of the PJM TO/TOP Matrix.² The PJM TO/TOP Reliability Audit validates the PJM Member TO's performance of the assigned or shared tasks through an evaluation of the Member TO's ability to comply with those assigned or shared tasks.

The assigned or shared reliability tasks include implementation of Operating Instructions or directives issued by PJM as the Transmission Operator (TOP). The reliability tasks also include adherence to processes defined in the PJM Manuals³, as required by the PJM Operating Agreement, PJM Consolidated Transmission Owners' Agreement, and the PJM Reliability Assurance Agreement, collectively called "The Agreements".⁴

This document describes and defines the process that PJM uses to conduct the PJM TO/TOP Reliability Audits and provides an overview of various activities that occur leading up to and following a PJM TO/TOP Reliability Audit.

2. Audit Frequency and Scope

PJM performs a TO/TOP Reliability Audit of each applicable TO within the PJM region on a rolling three year cycle, performing audits for approximately one third of the Member TOs every year. The schedule of the PJM TO/TOP Reliability Audits for the following year is compiled in the previous year and that schedule is sent to ReliabilityFirst (RF) 60 days prior to the end of the year.

Requests for delay of a PJM TO/TOP Reliability Audit will be considered by PJM. PJM communicates any changes in the schedule of the PJM TO/TOP Reliability Audits to RF within ten days of making such a change.

RF staff performs a TO/TOP Reliability Audit each year from among the TOs scheduled for audit that year. RF staff also attends one of the PJM TO/TOP Reliability Audits to observe the conduct of the PJM performed TO/TOP Reliability Audit.

¹ Facilities at or below 138 kV that are owned and operated by American Electric Power (AEP) as the TOP, and DOE equipment at the Portsmouth Centrifuge facility

² <http://www.pjm.com/library/compliance.aspx>

³ <http://www.pjm.com/library/manuals.aspx>

⁴ <http://www.pjm.com/library/governing-documents.aspx>

The PJM Audit Team uses the assigned or shared tasks identified in the PJM TO/TOP Matrix to ensure objectives associated with the NERC Reliability Standards are assessed. In addition, PJM Manuals contain requirements for TOs to adhere to in order to assure compliance by both the TO and PJM as the TOP.

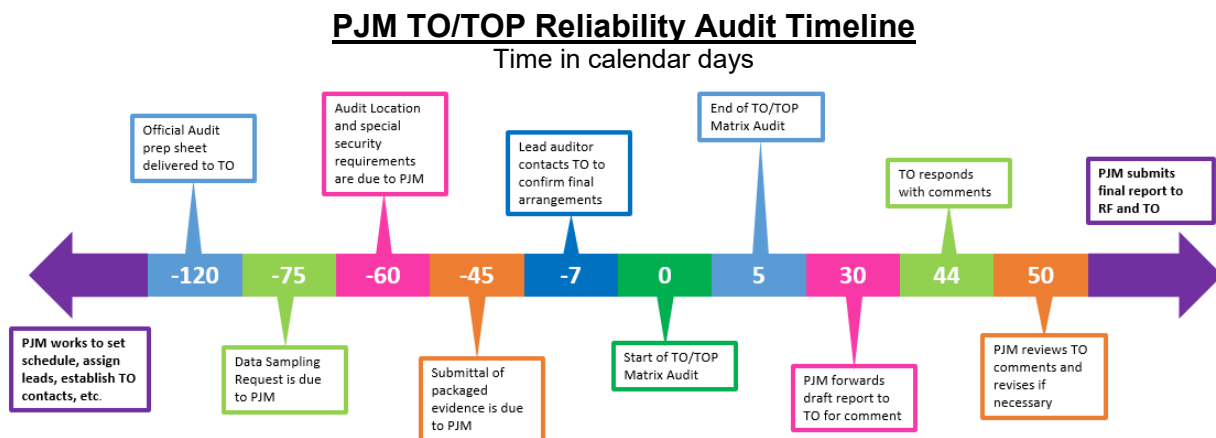
The PJM NERC Compliance Department is the contact group for all questions regarding the PJM TO/TOP Reliability Audits as well as the maintenance of the program documents and coordination of the staffing of the PJM Audit Teams.

3. Audit Procedure

This section provides an overview of the activities in a PJM TO/TOP Reliability Audit. The main steps include the following:

1. Scheduling and PJM Audit Team makeup
2. Pre-On-Site Activity
3. On-Site Activity
4. Post-On-Site Activity

The following graphic shows a timeline of the activities leading up to and after a PJM TO/TOP Reliability Audit.



3.1. Scheduling and PJM Audit Team Makeup

The PJM Audit Team is led by a representative of the PJM NERC Compliance department and team members may consist of the following:

1. Additional representative(s) from the PJM NERC Compliance department
2. Representative from the PJM System Operations Division
3. Representative from the PJM System Operator Training department or the PJM State and Member Training department
4. RF may send observer(s) with a 30-day notice to PJM and the applicable Member TO
5. Additionally, the PJM audit team may include an observer from another TO, if agreed to by the TO being audited.

The Member TO that is to be audited is consulted prior to the appointment of all PJM Audit Team members. If the Member TO have an objection to the appointment of a PJM

Audit Team member, the Member TO shall notify PJM and a substitute PJM Audit Team member is appointed. PJM employees are bound by the confidentiality provisions as set forth in Section 18.17 of the PJM Operating Agreement. Accordingly, PJM Audit Team members do not execute any additional Non-Disclosure Agreements with the TO being audited prior to or during the conduct of the audit.

The PJM Audit Team members are chosen based on their qualifications and experience in a variety of areas, some of which may include (but are not limited to):

- Extensive knowledge of NERC and Regional Entity Reliability Standards
- Bachelor degree in engineering, or related technical field with eight to ten years of related experience OR no degree with at least 10 plus years of related experience/education resulting in demonstrated ability to perform the major duties required of an auditor on the PJM Audit Team
- Compliance seminars and workshops
- PJM Operator Seminar
- Auditor training
- Auditing experience
- Knowledge of compliance enforcement
- NERC Reliability Standard drafting team participation
- On-the-Job-training achieved through observation of audits
- Regulatory experience in utilities or energy industry or other industries
- Working knowledge of the operation or planning of the Bulk Electric System (BES) and supporting technologies
- The PJM TO/TOP Reliability Audit Program Lead or the Manager of Reliability Compliance department determination that the potential PJM Audit Team member “meets qualifications”

3.2. Pre-On-Site or Virtual Activity

1. An initial PJM TO/TOP Reliability Audit notification ([TO Audit Preparation Sheet](#)) is sent to the Member TO being audited at least 120 calendar days in advance of the audit and includes a request for specific evidence of compliance that is to be made available to the PJM Audit Team for review prior to the On-Site Activity. The timeline for Member TO to provide the requested information is documented in the TO Audit Preparation Sheet. The requested list of operators on-shift is sent to the PJM State and Member Training department for review.
 - a. Using the list of operators supplied by the Member TO, the PJM State and Member Training department produces PJM Learning Management System (LMS) reports to satisfy several assigned or shared tasks related to Member TO operator training.
2. The PJM Audit Team leader provides the PJM Audit Team members with the following information upon receipt or as soon as practical, prior to the PJM TO/TOP Reliability Audit:
 - Electronic versions of any supporting files and documents sent by the Member TO to be audited
 - A sample On-Site audit agenda and an agenda for any pre-audit meetings

3. Member TO submits Data Sampling and complete packaged evidence prior to the scheduled audit as outlined in the [TO Audit Preparation Sheet](#) for the PJM Audit Team's evaluation of compliance to the assigned and shared tasks listed in the TO/TOP Matrix.
4. As needed, the PJM Audit Team meets prior to the audit to identify areas requiring further investigation, discuss concerns, coordinate the interview process, and assign responsibilities during the audit visit. This meeting may take place via virtual calls with the audited TO or at the audited TO's facility as agreed upon by the PJM Audit Team.

3.3. On-Site Activity

1. During the On-Site visit, the PJM Audit Team performs the following:
 - Interview the Member TO's operations, planning, and management personnel, as appropriate
 - Inspect the Member TO's Primary Control Center and Backup Control Center facilities and equipment
 - Review all necessary documents and data
 - Review and validate the Member TO's performance on all shared and assigned tasks listed within the PJM TO/TOP Matrix
2. After reviewing and assessing evidence for all effective assigned or shared tasks within the PJM TO/TOP Matrix, the PJM Audit Team presents the preliminary findings to the host Member TO during the closing presentation. Preliminary findings is noted as follows:
 - "Area of Concern" notes a deficiency in the Member TO's evidence that could present a potential compliance issue in a future TO/TOP Reliability Audit
 - "Recommendation" is noted in an area where the PJM Audit Team feels that there is an opportunity for the Member TO to improve its operating procedure(s) and/or evidence of compliance
 - "Positive Observation" is recognized to acknowledge evidence, best practices, or techniques that go beyond what is needed to prove compliance
 - "Potential Non-Compliance" notes an instance where the PJM Audit Team feels that based on the evidence presented the Member TO failed to comply with the assigned or shared task identified in the PJM TO/TOP Matrix

3.4. Post On-Site Activity

1. The PJM Audit Team leader prepares and provides a draft of the audit report to the PJM Audit Team for comments. The PJM Audit Team leader addresses comments received from the PJM Audit Team and provides the Member TO with a copy of the draft audit report. The goal of the PJM Audit Team is to provide this draft audit report within 30 calendar days of completion of the Audit engagement. The draft audit report is not be publicly disclosed.

2. PJM requests the Member TO to provide comments on the draft audit report within two weeks of receipt.
3. The PJM Audit Team leader and the PJM Audit Team reviews and incorporates the Member TO comments as appropriate and finalize the audit report. The PJM Audit Team leader sends a copy of the finalized audit report to the audited Member TO and RF.
4. The PJM NERC Compliance department is responsible for processing all Potential Non-Compliance in accordance with PJM’s Internal Compliance Program (ICP) as well as tracking the implementation of all mitigating actions.
5. The PJM Audit Team leader presents the Potential Issue(s) to Executive Director, Regulatory and Compliance and Manager, NERC Compliance Department, within seven calendar days of the conclusion of the On-Site Activity. The PJM Audit Team leader follows PJM’s Regulatory Oversight and Compliance Committee (ROCC) process that employs a deliberative method to evaluate whether a Potential Non-Compliance identified during the On-Site Activity presents a Potential Non-Compliance since PJM is the registered TOP for the PJM Region. PJM’s Executive Team has the ultimate decision making authority to determine whether a potential violation has occurred and whether PJM must submit a self-report for such a potential violation to RF.

4. Sample Audit Schedule

	Day 1	Day 2	Day 3
8:30 – 9:00	PJM Audit Team arrives	Member TO evidence presentation	Member TO evidence presentation
9:00 – 9:30	PJM Audit Team Opening Presentation/		
9:30 – 10:00			
10:00 – 10:30			
10:30 – 11:00			
11:00 – 11:30	Member TO Opening Presentation		
11:30 - 12:00			
12:00 – 12:30	Lunch	Lunch	Lunch
12:30 – 1:00			
1:00 – 1:30	Member TO evidence presentation	Member TO evidence presentation	PJM Audit Team meets privately
1:30 – 2:00			
2:00 – 2:30			
2:30 – 3:00			
3:00 – 3:30			PJM Audit Team closing presentation
3:30 – 4:00			
4:00 – 4:30			
4:30 – 5:00			

5. Revision History

Revision 08		Effective Date: 01/01/2024
Revised by	Mark Kuras, Gizella Mali	
Reviewed by	Tom Foster, Sr. Manager, NERC Compliance Mark Kuras, Sr. Lead Engineer, NERC Compliance Becky Davis, Lead Analyst, NERC Compliance Gizella Mali, Lead Analyst, NERC Compliance	
Approved by	Michael Del Viscio, Executive Director, Regulatory Compliance Officer	
Reason	Periodic Review. Updated TO/TOP Audit timeline referencing Data Sampling and evidence package requests. Throughout document revised from future to present tense and added Virtual Audit option.	

Revision 07		Effective Date: 12/5/19
Written by	Mark Kuras	
Reviewed by	Reliability Compliance department	
Approved by	Michel Del Viscio	
Reason	Annual review. Consistently use RF for ReliabilityFirst. Changed NERC and Regional Coordination to Reliability Compliance throughout. Revised for more term consistency. Replaced Eckenrod with Del Viscio. Removed the requirement to look at inactive versions of NERC standards.	
Next Review Due Date	12/5/20	

Revision 06		Effective Date: 1/22/18
Written by	Srinivas Kappagantula, Mark Kuras	
Reviewed by	Thomas Moleski, Mark Holman, Rob Eckenrod	
Approved by	Rob Eckenrod	
Reason	Annual review. Reorganized sections according to the actual conduct of the TO/TOP Reliability Audit. Number and format changes. Added Potential Issues and clarified PJM's ICP process to be followed when Potential Issues are identified. Added details on interaction with RF.	
Next Review Due Date	1/22/19	

Revision 05		Effective Date: 5/4/15
Written by	Angela D'Alessandro	
Reviewed by	Mark Kuras, Thomas Moleski, Mark Holman, Rob Eckenrod, Srinivas Kappagantula	
Approved by	Tom Bowe	
Reason	Annual review. General cleanup for consistency. As per the <i>ReliabilityFirst</i> 3 Year Appraisal Report for PJM's LCC (dated 3 Jan 2014)-PJM added Audit Team member knowledge/experiences to Section 4.	
Next Review Due Date	1/1/2018	

Revision 04		Effective Date: 1/16/14
Written by	Mark Kuras	
Reviewed by	Tom Moleski	
Approved by	Tom Bowe	
Reason	Annual Review. Refreshed to clarify the deliverables at the close of the on-site visit. Expanded to expressly include the Audit Team's duty to report Areas of Concern to PJM's Chief Compliance Officer. Added SERC members to audit program. General cleanup of unused parts. As per the <i>ReliabilityFirst</i> Audit and Appraisal Procedure for PJM's LCC (dated 3 Jan 2014)-PJM Made 3-year audit schedule rotation stronger. Added notification of <i>ReliabilityFirst</i> for audit schedule changes. Added preliminary audit findings groups. Added that <i>ReliabilityFirst</i> employees may act as an observer. Added that final reports will be forwarded to <i>ReliabilityFirst</i> .	
Next Review Due Date	1/16/15	

Revision 03		Effective Date: 07/29/11
Writer	Mark Kuras	
Reviewer	Patrick Brown	
Approver	Patrick Brown	
Reason Written	Annual Review	
Next Review Due Date	07/01/12	

Revision 02		Effective Date: 03/11/10
Writer	Mark Kuras	
Reviewer	Patrick Brown	
Approver	Patrick Brown	
Reason Written	Annual Review	
Next Review Due Date	03/10/11	

Revision 01		Effective Date: 09/04/08
Writer	Mark Kuras	
Reviewer	Patrick Brown	
Approver	Patrick Brown	
Reason Written	Remove references to NERC Readiness Audits. Add consideration of providing documentation to the Audit Team up-front at discretion of the Transmission Owner. Clarify responsibilities of Audit Team Leader. Resolve some confusion with TO and TOP responsibilities. Revise Typical Audit Schedule. Remove sample questionnaires, make separate document.	
Next Review Due Date	09/03/09	

Revision 00		Effective Date: 8/27/07
Writer	Leanne Harrison	
Reviewer	Joe Willson	
Approver	Alicia Daugherty	
Reason Written	Complete re-write of former LCC Audit Program/Procedure rewritten to focus on compliance instead of reliability consistent with PJM Manuals, NERC and Regional Entity standards.	
Next Review Due Date	7/27/08	