



# **Compliance Audit Report Public Version**

**Confidential Information (including Privileged and  
Critical Energy Infrastructure Information)  
Has Been Removed**

**Michigan Electric Transmission Company,  
LLC  
NERC ID # - NCR00820**

**Date of Audit  
September 16-18, 2008**

**Date of Report  
November 8, 2008**

## TABLE OF CONTENTS

Executive Summary .....	1
Audit Process .....	2
<i>Objectives</i> .....	2
<i>Scope</i> .....	2
<i>Confidentiality and Conflict of Interest</i> .....	2
<i>Off-site Audit</i> .....	3
<i>Methodology</i> .....	4
<i>Audit Overview</i> .....	4
<i>Audit</i> .....	4
<i>Exit Briefing</i> .....	4
<i>Company Profile</i> .....	5
<i>Audit Specifics</i> .....	6
Audit Results .....	6
<i>Findings</i> .....	8
<i>Compliance Culture</i> .....	11

## Executive Summary

This final compliance audit report is the public version. Confidential information (including privileged and critical energy infrastructure information) has been redacted from this report. The full final compliance audit report was submitted to the audited entity and NERC.

ReliabilityFirst scheduled Michigan Electric Transmission Company, LLC (METC) for an onsite audit of its compliance to the NERC Reliability Standards and the ReliabilityFirst Regional Standards that apply to METC for the functions that it performs within the ReliabilityFirst area as part of the NERC Compliance Monitoring and Enforcement Program (CMEP). The audit team reviewed the material provided by METC in response to the 60 day notification ReliabilityFirst provided requesting data and information to develop its compliance findings. The ReliabilityFirst audit team reviewed the material and developed the preliminary results on METC's compliance to the standards.

The 38 NERC Standards that apply to METC for the functions of Transmission Operator (TOP), Transmission Owner (TO) and Transmission Planner (TP) functions for which METC is registered to perform in the ReliabilityFirst area include 131 requirements that apply to METC. No regional standard applies to METC. Of the 38 standards, 4 standards and their 8 associated requirements were determined to be not applicable to METC.

METC has one open mitigation plan for its Vegetation Management Program and one transition plan to bring into compliance all of its 100 to 200 kV facilities and has been working towards closure on each of them. NERC Standard FAC-003-1, *Vegetation Management Program* and its three requirements are included in a mitigation plan and as such were not included as part of this audit. METC also has a transition plan for NERC Standard PRC-005-1, *Transmission and Generation Protection System Maintenance and Testing*, to bring its relay maintenance and testing program up to schedule for the relays above 100 kV and below 200 kV that are now included as part of the NERC compliance program. As such, NERC Standard PRC-005-1 and a review of the progress on that transition plan for this standard were included as a part of this audit.

METC was prepared for the audit and presented its documentation in a complete and concise manner. The audit team did not find any violations for METC as a result of this review. METC was found to be fully compliant with the 120 requirements and the 33 NERC standards that apply to METC (excluding FAC-003-1) for the functions for which it is registered in the ReliabilityFirst Region. The Relay transition plan was found to be on schedule and METC was found to be in compliance with the requirements of PRC-005-1 other than the schedule covered by the transition plan.

## Audit Process

The compliance audit process steps are detailed in the NERC CMEP. The NERC CMEP generally conforms to the United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

### **Objectives**

All Registered Entities are subject to audit for compliance with all reliability standards applicable to the functions for which the Registered Entity is registered.<sup>1</sup> The audit objectives are:

- Review METC's compliance with the requirements of the reliability standards that are applicable to METC based on METC's registered functions
- Validate compliance with applicable reliability standards from the NERC 2008 Implementation Plan list of actively monitored standards
- Validate evidence of self-reported violations and previous self-certifications, confirm compliance with other requirements of the reliability standard, and review the status of associated mitigation plans
- Document METC's compliance culture
- Validate compliance with other NERC standards outside the 2008 implementation plan as selected by *ReliabilityFirst*
- Validate compliance with applicable *ReliabilityFirst* reliability standards that apply to METC

### **Scope**

This audit was conducted on those standards which were provided by NERC for monitoring in the 2008 CMEP Implementation Plan. *ReliabilityFirst* also monitors all applicable *ReliabilityFirst* standards, self certifications, and mitigation plans as appropriate. This audit of METC did not include any regional standards.

### **Confidentiality and Conflict of Interest**

Confidentiality and Conflict of Interest of the audit team are governed under the *ReliabilityFirst* Delegation Agreement with NERC and the NERC Rules of Procedure Section 1500. The audited entity was informed of the *ReliabilityFirst* obligations and responsibilities under the agreement and procedures. The work history for each audit team member was provided to the audited entity. The audited entity was given an opportunity to object to an audit team member on the basis of a possible conflict of interest or the existence of other circumstances that could

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<sup>1</sup> North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

interfere with the audit team member's impartial performance of duties. The audited entity did not submit any objections by the stated fifteen day objection due date and by this action has accepted the audit team member participants without objections. ReliabilityFirst found no conflict of interest for any of the audit team members.

### ***On-site Audit***

METC is subject to an audit once every three years as provided by the NERC Rules of Procedure. Every RC, TOP and BA registered in the NERC Functional Registration Data Base is required to have an on-site audit once every three years. METC was provided 60 day notification of this scheduled audit and at that time all necessary documents required by the NERC and ReliabilityFirst audit process were provided. The following documents were provided as part of the notification:

- 60 day Notification letter which contained request for evidence , information, and date submittals
- Audit Survey
- Audit Agenda as applicable
- Internal Compliance Survey
- Audit Team Work History with discussion of objection process
- General Instructions of Data or Information Submittals
- Reliability Standard Auditor Worksheets (RSAWs)
- Reliability Standard Questionnaires

Documents were provided to METC in both electronic and hardcopy format.

ReliabilityFirst discussed the use of technical experts with the METC primary compliance contact and indicated that ReliabilityFirst would welcome the use of technical experts by METC as it deems necessary to explain their compliance to the standards. As such, METC has been notified to provide any technical experts or personnel that it deems necessary in order to provide the Audit Team an understanding of the evidence provided to meet compliance.

An audit agenda and/or schedule were provided to METC in advance to allow the necessary time to prepare for the audit. METC cooperation and flexibility with the agenda was appreciated by the audit team.

This audit was conducted in the ITC Holdings Corp (ITC) offices using material provided by METC. The audit team reviewed METC compliance processes for all applicable standards with METC technical experts and requested additional information to clarify information previously supplied to the team. These interviews in conjunction with evidence provided, supplied the audit team with a basis for using professional judgment when validating compliance to the reliability standards.

## ***Methodology***

The audit team reviewed the evidence provided by METC for each of the requirements that apply to the functions performed by the company to determine if the company complied with those standards and associated requirements. The team reviewed each requirement, discussed the levels of compliance and addressed each team member's observations from the audit to determine its findings from the review.

## ***Audit Overview***

An Opening Briefing was conducted to discuss the following:

- Introduction of audit team
- Audit Objective and Scope
- Team Audit Expectations
- Discussion on Clarification Calls
- Audit Process
- Exit Briefing and schedule

## ***Audit***

The audit team worked in two sub-groups. The applicable standards were divided between the two groups and each group reviewed each requirement assigned to it to determine if METC was compliant to the requirement. Each of the two groups shared its findings with the other to determine METC's compliance to each of the standards. The audit followed the agenda closely. The agenda was adjusted to remove FAC-003-1, Vegetation Management, which was to be reviewed by an enforcement team as part of its mitigation plan closure and confirmation proceedings. Upon request, METC provided additional information or clarified existing information during the review of its material with their subject matter experts.

## ***Exit Briefing***

The audit team presented its preliminary findings to the METC staff. The team lead explained the findings from the audit. The presentation was attended by the following METC staff:

<b>Title</b>	<b>ITC</b>
Supervisor – Control Area Operations	ITC
Director – Compliance & Training	ITC
Director – Operations Engineering	ITC
VP – IT & Facilities & CIO	ITC
VP – Operations	ITC
VP – General Counsel Utility Operations	ITC
Director – Real Time Operations	ITC
Principal System Analyst TMS – ATF	ITC

<b>Title</b>	<b>ITC</b>
Manager – Control Area Operations	ITC
Operations Consultant	ITC
Compliance Manager	ITC
Director – Asset Management	ITC
VP – Planning	ITC

The exit presentation also covered the team findings on the mitigation and transition plans mentioned above, the reporting process going forward, and audit feedback forms that the region is using to improve their audit process.

### **Company Profile**

METC performs the following NERC function in the Reliability*First* region and is registered with NERC/Reliability*First* for the following functions:

- Transmission Operator (TO)
- Transmission Owner (TOP)
- Transmission Planner (TP)

Together, ITC Transmission (ITCT) and METC operate the electric transmission system in Michigan. ITCT and METC are both subsidiaries of ITC Holdings Corp (ITC). ITC operates ITCT and METC from the same control room. While the two areas for ITCT and METC are operated separately, the staff can operate either system and the operators use the same control systems and both system operations are closely coordinated. ITC acquired METC in October of 2006 and has functionally combined ITCT and METC operations. While separate operating companies, most of the procedures are shared by both systems. In addition, ITCT and METC jointly operate the Michigan Electric Coordinated Systems (MECS) which is the balancing authority for the two systems plus other systems embedded in the ITCT and METC transmission systems.

In this report when the acronym ITC is used, it refers to the operation of both systems (and MECS where appropriate) or processes and procedures common to both systems. The compliance audits of ITCT, METC, and MECS were conducted concurrently. Three reports were written, each covering the areas of responsibility for the organization in its individual audit report. ITCT, METC, and MECS operate as different divisions of the ITC organization. The separate reports often cover common operations, procedures, documentation, equipment, and personnel.

METC's system spans all or part of 60 counties in Michigan and serves approximately six million end-use consumers. It is interconnected with ITCT, American Electric Power, Northern Indiana Public Service, and American Transmission Company. MISO is its Reliability Coordinator and it operates in the MISO market area. METC operates 1,900 miles of 345 kV and 3,500 miles of 138 kV transmission line. Other key MECS and ITC Statistics are given in the following table:

	METC	ITCT	Combined (ITC)
Service Territory (Square Miles)	18,800	7,600	26,200
Transmission (Line Miles)	5,400	2,700	9,100
Substations	81	155	236
Peak Load (MW)	9,607	12,762	22,369
Generation (MW)	11,300	13,070	24,370

### **Audit Specifics**

The compliance audit was conducted on September 16 - 18, 2008 at the ITC office in Novi, MI.

### **Audit Team**

<b>Audit Team Role</b>	<b>Title</b>	<b>Company</b>
Lead	Manager of Compliance Audits	ReliabilityFirst Corporation
Member	Manager of Compliance Program Implementation	ReliabilityFirst Corporation
Member	Senior Consultant	ReliabilityFirst Corporation
Member	Senior Engineer	ReliabilityFirst Corporation
Member	Consultant	Sander-Reber
Member	Consultant	Scott Porteous & Associates
Observer	Regional Compliance Program Coordinator	NERC
Observer	Manager of Organization Registration and Certification	NERC

### **METC Audit Participants**

<b>Title</b>	<b>ITC</b>
Supervisor – Control Area Operations	ITC
Director – Compliance & Training	ITC
Director – Operations Engineering	ITC
Manager – Security	ITC
Manager – Operations	ITC
Sr. Engineer – Relay Performance	ITC

Title	ITC
VP – IT & Facilities & CIO	ITC
Manager – Maintenance & Equipment	ITC
TMS Support Principal Engineer	ITC
Engineer – Sys & Interconnection Planning	ITC
VP – Operations	ITC
Principal Engineer – Telecom Support	ITC
Manager – Sys & Interconnection Planning	ITC
Sr. Transmission System Coordinator	ITC
VP – General Counsel Utility Operations	ITC
Director – Real Time Operations	ITC
Principal Engineer	ITC
Principal System Analyst TMS – ATF	ITC
Manager – Control Area Operations	ITC
Sr. Staff Engineer – EMSYS Support SCADA	ITC
Manager – Information Security/IT Governance	ITC
Operations Consultant	ITC
Compliance Manager	ITC
Training Administrator	ITC
Principal Engineer – Relay Performance	ITC
Director – Asset Management	ITC
VP – Planning	ITC
Sr. Staff Engineer – Operations Engineering	ITC
Manager – Training	ITC
Principal Engineer – Relay Performance	ITC

## Audit Results

METC had one mitigation plan for FAC-003-1 and one transition plan for PRC-005-1 that it is currently working towards closure at the time of this audit. After reviewing the evidence presented to the audit team, METC is found to be on schedule for the transition plan that is in place for NERC Standard PRC-005-1, Transmission and Generation Protection System Maintenance and Testing, and compliant with the remainder of all applicable requirements of the standards reviewed. FAC-003-1, Vegetation Management Program, was not included as a part of this on-site audit, as that Standard and the METC mitigation plan is currently being review by ReliabilityFirst Enforcement.

Senior management attended the opening and exit briefing presentations. METC was prepared for the audit and presented its documentation in a complete and concise manner.

## Findings

The following table details the auditor findings relating to evidence reviewed for compliance with the reliability standards listed in the NERC 2008 Implementation Plan. The table includes details, section and page numbers noted by the auditor relating to the evidence reviewed for compliance to the reliability standard and associated requirements.

**METC On-site Audit Findings Table**

<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
BAL-005-0	R1	Compliant
CIP-001-1	R1	Compliant
CIP-001-1	R2	Compliant
CIP-001-1	R3	Compliant
CIP-001-1	R4	Compliant
COM-001-1	R1	Compliant
COM-001-1	R2	Compliant
COM-001-1	R3	Compliant
COM-001-1	R4	Compliant
COM-001-1	R5	Compliant
COM-002-2	R1	Compliant
COM-002-2	R2	Compliant
EOP-001-0	R1	Compliant
EOP-001-0	R2	Compliant
EOP-001-0	R3	Compliant
EOP-001-0	R4	Compliant
EOP-001-0	R5	Compliant
EOP-001-0	R6	Compliant
EOP-001-0	R7	Compliant
EOP-003-1	R1	Compliant
EOP-003-1	R2	Compliant
EOP-003-1	R3	Compliant
EOP-003-1	R4	Compliant
EOP-003-1	R5	Compliant
EOP-003-1	R6	Compliant
EOP-003-1	R7	Compliant
EOP-003-1	R8	Compliant
EOP-004-1	R2	Compliant
EOP-004-1	R3	Compliant
EOP-005-1	R1	Compliant
EOP-005-1	R2	Compliant
EOP-005-1	R3	Compliant

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<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
EOP-005-1	R4	Compliant
EOP-005-1	R5	Compliant
EOP-005-1	R6	Compliant
EOP-005-1	R7	Compliant
EOP-005-1	R8	Compliant
EOP-005-1	R9	Compliant
EOP-005-1	R10	Compliant
EOP-005-1	R11	Compliant
EOP-008-0	R1	Compliant
FAC-003-1	R1	Mitigation under review, not included
FAC-003-1	R2	Mitigation under review , not included
FAC-003-1	R3	Mitigation under review, not included
FAC-008-1	R1	Compliant
FAC-008-1	R2	Compliant
FAC-008-1	R3	Compliant
FAC-009-1	R1	Compliant
FAC-009-1	R2	Compliant
INT-004-1	R1	Compliant
IRO-001-1	R8	Compliant
IRO-004-1	R3	Compliant
IRO-004-1	R4	Compliant
IRO-004-1	R7	Compliant
IRO-005-1	R8	Compliant
IRO-005-1	R12	Compliant
IRO-005-1	R13	Compliant
MOD-010-0	R1	Compliant
MOD-010-0	R2	Compliant
MOD-012-0	R1	Compliant
MOD-012-0	R2	Compliant
MOD-019-0	R1	Compliant
PER-002-0	R1	Compliant
PER-002-0	R2	Compliant
PER-002-0	R3	Compliant
PER-002-0	R4	Compliant
PER-003-0	R1	Compliant
PRC-004-1	R1	Compliant
PRC-004-1	R3	Compliant
PRC-005-1	R1	Compliant
PRC-005-1	R2	METC is currently working under an approved Reliability <i>First</i> Transition Plan
PRC-008-0	R1	NA

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<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
PRC-008-0	R2	NA
PRC-010-0	R1	NA
PRC-010-0	R2	NA
PRC-011-0	R1	NA
PRC-011-0	R2	NA
PRC-016-0	R1	Compliant
PRC-016-0	R2	Compliant
PRC-016-0	R3	Compliant
PRC-017-0	R1	Compliant
PRC-017-0	R2	Compliant
PRC-021-1	R1	NA
PRC-021-1	R2	NA
TOP-002-2	R1	Compliant
TOP-002-2	R2	Compliant
TOP-002-2	R4	Compliant
TOP-002-2	R5	Compliant
TOP-002-2	R6	Compliant
TOP-002-2	R10	Compliant
TOP-002-2	R11	Compliant
TOP-002-2	R16	Compliant
TOP-002-2	R17	Compliant
TOP-002-2	R18	Compliant
TOP-002-2	R19	Compliant
TOP-003-0	R1	Compliant
TOP-003-0	R2	Compliant
TOP-003-0	R3	Compliant
TOP-004-1	R1	Compliant
TOP-004-1	R2	Compliant
TOP-004-1	R3	Compliant
TOP-004-1	R4	Compliant
TOP-004-1	R5	Compliant
TOP-004-1	R6	Compliant
TOP-005-1	R1	Compliant
TOP-005-1	R2	NA
TOP-005-1	R3	Compliant
TOP-007-0	R1	Compliant
TOP-007-0	R2	Compliant
TOP-007-0	R3	Compliant
TPL-001-0	R1	Compliant
TPL-001-0	R2	Compliant

<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
TPL-001-0	R3	Compliant
TPL-002-0	R1	Compliant
TPL-002-0	R2	Compliant
TPL-002-0	R3.	Compliant
TPL-003-0	R1	Compliant
TPL-003-0	R2	Compliant
TPL-003-0	R3	Compliant
TPL-004-0	R1	Compliant
TPL-004-0	R2	Compliant
VAR-001-1	R1	Compliant
VAR-001-1	R2	Compliant
VAR-001-1	R3	Compliant
VAR-001-1	R4	Complaint
VAR-001-1	R6	Complaint
VAR-001-1	R7	Compliant
VAR-001-1	R8	Compliant
VAR-001-1	R9	Compliant
VAR-001-1	R10	Compliant
VAR-001-1	R11	Compliant
VAR-001-1	R12	Compliant

### **Compliance Culture**

METC provided documentation to demonstrate its compliance to the requirements of the applicable standards. The documentation was complete and in order such that the audit team could reasonably determine METC compliance to the applicable requirements. METC provided additional evidence and clarifications in a timely manner when requested by the audit team. METC completed the Compliance Audit Questionnaire, individual Pre-Audit Questionnaires for each applicable standard, and the documentation section of the NERC Reliability Standard Audit Worksheets.

ITC has appointed a Corporate Compliance Officer. The ITC Organizational chart indicated that the Corporate Compliance Officer has direct access to the CEO and the Board of Directors if needed. The board of Directors has appointed a committee that has monitoring and oversight of the ITC compliance program.

ITC hired an independent contractor to review and assess its compliance program in meeting compliance to every NERC Standard. ITC purchased a software product to track the documentation for its compliance program.

METC staff was able to supply additional evidence of compliance in a timely manner when requested by the audit team. Its quick response to additional questions is evidence of a comprehensive compliance program.

ITC also showed its in-house compliance training program that it conducts for its employees to the Audit Team.

The guidance by corporate management and training provided strengthen the METC compliance program.