



Compliance Audit Report Public Version

**Confidential Information (including Privileged and
Critical Energy Infrastructure Information) – Has
been removed**

**Calpine Energy Services
NERC ID # - NCR07025**

Date of Audit - August 24- September 15, 2009

Date of Report – October 28, 2009

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Executive Summary

This compliance audit report is the non-public version which contains confidential information (including privileged and critical energy infrastructure information). This non-public compliance audit report will be submitted to NERC.

A compliance audit of Calpine Energy Services was conducted from August 24, 2009 to September 15, 2009 by an audit team lead by ReliabilityFirst. ReliabilityFirst conducts compliance audits as part of the ReliabilityFirst Compliance Monitoring and Enforcement Program (CMEP). At the time of the audit, Calpine Energy Services, NERC ID # - NCR07025; was registered for the Generation Owner (GOP) and Purchasing Selling Entity (PSE) functions that it performs in the ReliabilityFirst region.

The Audit Team evaluated Calpine Energy Services for compliance with nine (9) NERC Reliability Standards consisting of twenty-one (21) requirements for the period of June 18, 2007 to September 15, 2009. Calpine Energy Services provided information and documentation to aid the Audit Team's evaluation of compliance with the applicable standards. The Audit Team reviewed and evaluated all information provided by Calpine Energy Services to assess compliance with requirements/standards applicable to the GOP and PSE functions.

Calpine Energy Services was found compliant to all nine (9) NERC Reliability standards consisting of twenty-one (21) requirements. The Audit Team did not identify any Possible Violations (PVs). The basis for these findings is detailed in the Audit Result Findings section of this report.

There were no on-going mitigation plans and therefore none were reviewed by the audit team.

Audit Process

The compliance audit process steps are detailed in the ReliabilityFirst CMEP. The ReliabilityFirst 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.¹ The audit objectives are to:

¹ North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

- Review Calpine Energy Services compliance with the requirements of Reliability Standards that are applicable to Calpine Energy Services based on Calpine Energy Services' registered function.
- Validate compliance with applicable Reliability Standards from the NERC 2009 Implementation Plan list of actively monitored standards.
- Validate evidence of outstanding self-reported violations and previous self-certifications, confirm compliance with other requirements of the Reliability Standards, and review the status of associated Mitigation Plans.
- Document Calpine Energy Services' compliance program and culture.
- Validate compliance with additional NERC standards selected by the regions that are not in the NERC 2009 Implementation Plan.
- Validate compliance with applicable Reliability*First* reliability standards that apply to Calpine Energy Services.

Scope

The scope of the compliance audit included applicable NERC Reliability Standards applicable to the Registered Entity being monitored in the 2009 Reliability*First* Implementation Plan for the current and two previous years to June 18, 2007. Reliability*First* also included a review of appropriate mitigation plans and self-certifications.

Confidentiality and Conflict of Interest

Confidentiality and Conflict of Interest of the Audit Team are governed under the Reliability*First* Delegation Agreement with NERC and the NERC Rules of Procedure Section 1500. Calpine Energy Services was informed of the Reliability*First* obligations and responsibilities under this agreement and rules of procedure. The work history for each Audit Team member was provided to Calpine Energy Services. Calpine Energy Services 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 interfere with the Audit Team member's impartial performance of duties. Calpine Energy Services did not submit any objections by the stated fifteen day objection due date and by this action accepted the Audit Team member participants without objection.

Off-site Audit

Calpine Energy Services is currently subject to a compliance audit at a minimum of once every six years as provided by the NERC Rules of Procedure. Every GOP and PSE in the NERC Compliance Registry is required to have an audit once every six years. Calpine Energy Services was provided with a 90 day notification of this scheduled audit and at that time was provided with all necessary documents required by the NERC and Reliability*First* audit process. The following documents were provided as part of the 90 day notification:

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

Documents were provided to Calpine Energy Services in electronic format.

Reliability*First* discussed the use of technical experts with the Calpine Energy Services primary compliance contact and indicated that Reliability*First* would welcome the use of technical experts by Calpine Energy Services as deemed necessary to explain their compliance to the requirements/standards.

Calpine Energy Services cooperation and flexibility with the agenda to address the requirements/standards was appreciated by the Audit Team.

This audit was conducted in the Reliability*First* offices in Akron, Ohio, using material provided by Calpine Energy Services. The Audit Team reviewed Calpine Energy Services' evidence of compliance for all applicable standards with Calpine Energy Services technical experts, and requested, as required, 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 their professional judgment when validating compliance to the Reliability Requirements/Standards.

Methodology

The Audit Team reviewed the evidence provided by Calpine Energy Services for each of the Reliability Standards and requirements that apply to the functions performed by the company to assess Calpine Energy Services compliance with those NERC Reliability Standards and associated requirements, and a review of self-certifications. The Audit Team reviewed each requirement, discussed the levels of compliance and addressed each team member's observations during the audit to determine the team's compliance findings from the audit review.

Opening Briefing

An Opening Briefing was conducted with Calpine Energy Services to discuss the following:

- Introduction of Audit Team
- Audit Objective and Scope
- Confidentiality of data and information
- Audit Team's Expectations
- Clarification Calls
- Audit Process
- Exit Briefing and schedule

Audit

The Reliability*First* Audit Team reviewed Calpine Energy Services applicable reliability standards/requirements and evaluated and measured the evidence provided for each to determine compliance. When there was concern that the supporting evidence was not adequate or did not meet the intent of the requirement, the Audit Team requested signed attestations.

Exit Briefing

The Audit Team conducted an exit briefing with a presentation to Calpine Energy Services via web-ex/conference call on September 4, 2009. The presentation was attended by Calpine Energy Services staff as well as the audit team. The status of the off-site audit process was discussed, followed by a review of the audit scope, the preliminary audit findings, and the compliance audit report process and entity feedback. Calpine Energy Services was provided an opportunity to ask questions concerning the topics that the Audit Team addressed.

Company Profile

At the time of the audit, Calpine Energy Services was registered for the NERC function Generation Operator (GOP) and Purchasing Selling Entity (PSE) in the Reliability*First* region.

Calpine Energy Services operates the Zion Generating Station which consists of three (3) simple-cycle dual fuel gas turbines interconnected with the ComEd 345 kV system.

Each Generator has a nameplate rating of 234 MVA and can operate on either Natural Gas or #2 diesel fuels (backup). None of the units are blackstart capable.

Calpine Energy Services operates in a 24/7 environment and has PJM as its Reliability Coordinator (RC), Balancing Authority (BA), and Transmission Operator (TOP).

Calpine Energy Services has not received any reliability directives during the audit period.

Audit Specifics

The compliance audit was conducted from August 24 – September 14, 2009 at the ReliabilityFirst Office in Akron, Ohio.

Audit Team

Audit Team Role	Title	Company
Lead	Senior Consultant	ReliabilityFirst Corporation
Member	Consultant	RNJ-Energy

Calpine Energy Services Audit Participants

Title	Company
Director of Commercial NERC Compliance	Calpine Energy Services
Director, Corporate NERC Compliance	Calpine Corporation

Audit Results

After reviewing all of the evidence presented, Calpine Energy Services was found compliant to nine (9) NERC Reliability standards consisting of twenty-one (21) requirements. The audit team did not find any Possible Alleged Violations (PAVs). There were no mitigation plans, self certifications, or applicable regional standards that were in need of review by the audit team.

Findings

The following table details the Audit Team's findings and evidence reviewed for compliance with nine (9) applicable NERC Reliability Standards for Calpine Energy Services' registered function. The table includes details, document section, and page numbers noted by the Audit Team relating to the evidence reviewed for compliance to each Reliability Standard and the associated requirements.

Calpine Energy Services Off-site Audit Findings Table

Reliability Standard	Requirement	Finding
CIP-001-1	R1	Compliant
CIP-001-1	R2	Compliant
CIP-001-1	R3	Compliant
CIP-001-1	R4	Compliant
COM-002-2	R1	Compliant
IRO-001-1	R8	Compliant
IRO-004-1	R4	Compliant
IRO-005-2	R13	Compliant
PRC-001-1	R1	Compliant
PRC-001-1	R2 & sub Reqs.	Compliant
PRC-001-1	R3 & sub Reqs	Compliant
PRC-001-1	R5 & sub Reqs	Compliant
TOP-001-1	R3	Compliant
TOP-001-1	R6	Compliant
TOP-001-1	R7 & sub Reqs	Compliant
TOP-002-2	R3	Compliant
TOP-002-2	R13	Compliant
TOP-002-2	R14 & sub Reqs	Compliant
TOP-002-2	R15	Compliant
TOP-002-2	R18	Compliant
VAR-001-1	R5	Compliant

Compliance Culture

As part of the audit, Calpine Energy Services provided a brief description outlining Calpine Energy Services' compliance program. The program is designed to be independent of Calpine's Commercial and Operations functions by having their NERC Compliance Team report up to the Chief Legal Officer. The Chief Legal Officer reports directly to the CEO. Calpine's CEO also has a documented Open Door Policy for all matters including compliance.

The compliance group has the ability to pull in Calpine subject matter experts to assist with particular issues, which enables the company to quickly identify and resolve compliance issues as they arise. The Compliance Program includes the company's internal audit process, and the Unified Governance, Risk and Compliance application is used to administer Controlled Self Assessments to complement the internal audit process. Where appropriate, internal controls are utilized by assigning tasks to individuals and periodically monitoring the tasks to ensure they are in compliance, with the requirements outlined by the task.

The Compliance Program utilizes a top down approach and is governed by an Executive Stakeholder Committee. Funding and approvals come directly from the CEO and executive management staff. Executive management staff is comprised of executives and Senior Vice Presidents from all departments of the organization.

An initial corporate NERC training course was given to all employees and is required training for all new employees. More specific training was developed for individuals responsible for reliability compliance as part of their normal daily duties which include periodic plant employee training and continued education for the NERC compliance project group on Reliability Standards and compliance.

Calpine adheres to its Progressive Discipline Policy regarding disciplinary actions for employees involved in Reliability Standards violations.