



Compliance Audit Report Public Version

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

**Calpine Energy Services and Calpine
Corporation
NCR01189/NCR00006
June 9-12, 2008**

July 22, 2008

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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.

Calpine Energy Services and Calpine Corporation (Collectively referred to hereafter as Calpine) were audited on June 9-12, 2008 for compliance with the requirements contained in the currently mandatory and enforceable Reliability Standards in the 2008 NERC Compliance Monitoring and Enforcement Program (CMEP) that are applicable to Calpine's registered functions. Calpine Corporation is registered with SERC Reliability Corporation (SERC) as a Generator Owner (GO). Calpine Energy Services is registered with SERC as a Generator Operator (GOP) and Purchasing-Selling Entity (PSE). Twenty-one standards were selected and identified to Calpine as subject to review during this audit. The audit focused on documents and other evidence provided to SERC by the staff of Calpine, and did not include any evidence obtained through system observation or inspection. The findings of the audit are based on the state of compliance and current mitigation activity at the time of the audit, and do not reflect past compliance activities or activities that will be completed in the future. Calpine's staff was; however, requested to provide an informational presentation on their progress with implementation of Cyber Security Standards CIP-002-1 through CIP-009-1.

Calpine staff was requested to provide valid evidence of meeting each and every applicable requirement and sub-requirement contained in each standard that had been previously identified by SERC Compliance staff to Calpine as subject to this audit. Calpine staff responded by providing evidence in the form of reports, procedures, studies, and other documents. Calpine staff then cited specific portions of the evidence that demonstrated compliance. This evidence and the citations were documented and evaluated by the audit team to assess the level of compliance. If all of the requirements and sub-requirements of an audited standard were met, then Calpine was judged to be compliant. Likewise, if any of the requirements or sub-requirements were not fully met, then Calpine was judged to have a possible violation of the standard. A score of 100% is required for compliance.

The Calpine audit was originally scheduled to be conducted during the period of June 9-11, 2008. Calpine was notified, via a Letter of Introduction, dated December 27, 2007; an Audit Detail Letter, dated March 14, 2008; and, a listing of 'Documents to be Provided or Have Available', dated March 14, 2008, of the requirement to have available documents and evidence to verify compliance with each Standard in the Audit Scope. Calpine's evidence of policies, procedures and programs contained multiple references to, and therefore required review of, documents for each of their eight facilities located in the SERC Region. Calpine was not initially prepared to provide documented evidence of the policies, procedures and programs needed to confirm compliance over the entire audit review period. Calpine was not prepared to provide specific requests for evidence of compliance with several of the standards. In order to facilitate a thorough review of the Standards and requirements, the SERC Audit Team extended the audit of Calpine one additional full day, terminating the audit on June 12, 2008.

The audit team determined that Calpine does not own or operate Under Voltage Load Shedding or Special Protection Systems and is not part of the Regional Restoration Plan; therefore, 3 of the 21 standards applicable to Calpine were determined not applicable. These standards are PRC-016, PRC -017, and EOP-009.

Calpine Corporation recently closed mitigation plans regarding NERC Reliability Standards FAC-008-1, Requirements 1, 2 and 3; FAC-009-1, Requirements 1 and 2; and, PRC-005-1, Requirements 1 and 2. Calpine Energy Services recently closed mitigation plans regarding NERC Reliability Standards BAL-005-0, Requirement 1; and CIP-001-1, Requirements 1, 2, 3 and 4. The audit team reviewed mitigation plan completion documentation to ensure Calpine's compliance with each standard.

As a result of an August 25, 2007 system disturbance, originating from a high-side bushing failure on Calpine's Broad River Energy Facility Unit 5 Generator Step-up Transformer and the consequential coil failure of the transformer Lock-Out Relay, the investigating SERC Event Analysis Team issued three recommendations to Calpine. The audit team reviewed the progress of actions taken by Calpine as a result of these recommendations.

Calpine Corporation, registered with SERC as the Generator Owner, was found to be in compliance with all but two of the NERC Reliability Standards that were audited. The audit team determined Calpine Corporation to be in possible violation of NERC Reliability Standards IRO-004-1, Requirement 4 – Reliability Coordination-Current Day Operations and PRC-005-1, Requirements 1 and 2 – Transmission and Generation Protection System Maintenance and Testing.

Calpine Energy Services, registered with SERC as the Generator Operator and Purchasing Selling Entity, was found to be in compliance with all but four of the NERC Reliability Standards that were audited. The audit team determined Calpine Energy Services to be in possible violation of IRO-004-1, Requirement 4 – Reliability Coordination-Current Day Operations; TOP-002-2, Requirement 3 – Normal Operations Planning, TOP-003-0, Requirement 1 – Planned Outage Coordination, and TOP-005-1, Requirement 4 – Operational Reliability information.

This audit report includes information about how far Calpine missed the requirements for the possible compliance violations. This information will be used to help determine the severity level of sanctions and penalties. The possible compliance violations will be processed through the SERC CMEP. Any further actions related to possible compliance violations will be through that process.

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.¹ The audit objectives are:

- Independently review Calpine compliance with the requirements of the reliability standards that are applicable to Calpine based on the Calpine registered functions.
- Validate compliance with applicable reliability standards from the NERC 2008 Implementation Plan list of actively monitored standards.

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

- 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 the Calpine compliance culture.

Scope

The scope of the audit of Calpine included all monitored standards that are in the NERC 2008 CMEP. Based on the confirmed registrations of Calpine, the 21 Reliability Standards previously indentified were the focus of the compliance audit. Of these 21 standards 3 standards; EOP-009-0, PRC-016-0 and PRC-017-0 were determined not applicable. This is detailed in the Audit Results section.

Note: For the 2008 compliance program, the monitoring period for the compliance audit will generally be the past 12 months or periods specified in individual reliability standards. The monitoring period is not limited to the time period for which penalties and sanctions are assessed.

Confidentiality and Conflict of Interest

Code of conduct documentation for the NERC representative and regional entity staff were provided to Calpine in advance of the audit. Work history and conflict of interest forms submitted by each audit team member were provided to Calpine upon request. Calpine 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 accepted the audit team member participants with no objections.

On-site Audit

Calpine was contacted by letter on December 17, 2007 by SERC staff. The letter provided Calpine with their initial notification of their upcoming audit in 2008, and the desire to schedule audit dates that would be acceptable to both parties. SERC staff then provided formal acknowledgement of the scheduled audit dates and requested that Calpine both verify their currently registered functions and complete and return an attached Pre-Audit Survey within 30 days.

On March 14, 2008, SERC staff forwarded an Audit Detail Letter to Calpine, again confirming the scheduled audit dates and confirming Calpine's registered functions within SERC. The Audit Detail Letter also provided Calpine with notice of the Standards in Audit Scope, Proposed Audit Schedule, Audit Team Roster (with industry affiliations), and requested that Calpine Subject Matter Experts (SMEs) responsible for and knowledgeable of compliance submittals be available for interview during the audit. In addition to the Audit Detail Letter, Calpine was provided with a Non-Disclosure Agreement Signature Verification for audit team members, a Pre-Audit Questionnaire, a list of 'Documents to be Provided or Have Available', and Reliability Standard Auditor Worksheets (RSAWs) for each standard to be audited.

Interviews with SMEs were requested, in conjunction with documented evidence, to provide the audit team with additional information or clarification as a basis for professional judgment when validating compliance with reliability standards.

Methodology

A team of auditors and SMEs were identified and conducted the audit of Calpine. The standards were grouped and scheduled for review to make the most efficient use of Calpine staff's time. The audit team moderator (ATL or designee) initiated dialogue on each standard requirement

and requested compliance evidence. This evidence and Calpine's staff response was documented. Calpine staff was requested to show valid evidence of meeting each applicable requirement and sub-requirement contained in the 21 standards that had been previously identified by SERC to Calpine as subject to this audit. Calpine staff responded by providing evidence in the form of reports, procedures, studies, and other documents. Calpine staff would then cite specific portions of the evidence that demonstrated compliance.

This evidence and the citations were documented by the scribe on the RSAWs and evaluated by the audit team for the level of compliance and agreement with the requirement. Discrepancies between the requirement and the evidence provided were the subject of dialogue among the team members and Calpine staff members until it was determined that each requirement was met by the cited evidence or other evidence offered.

Once all the evidence was presented and discussed, if Calpine did not provide sufficient evidence to support a finding of compliance, then a possible violation was identified by the team and Calpine staff was informed.

Audit Overview

The audit team arrived at the Calpine offices at 2:45 p.m. CDT, June 9, 2008. The audit team reviewed team assignments and a general overview for preparation of the audit activities starting on the next day. At 4:00 p.m. CDT, the Audit Team Lead (ATL) began the session with an opening presentation. He reviewed the NERC compliance plan for 2008 in general, and how it applied to Calpine specifically. The ATL introduced and reviewed the standards to be covered in the audit, and addressed both the expectations of Calpine staff and the quality of evidence to be presented. The ATL also covered the basic procedure for the audit, and the bounding rules of conduct. The staff of Calpine was introduced, and general housekeeping matters explained. Calpine staff made a brief presentation describing Calpine's corporate structure, compliance program and an informational overview of progress made toward implementation of the Cyber Security Standard requirements of CIP-001-1 through CIP-009-1.

The audit team arrived at the Calpine offices at 7:45 a.m. CDT on June 10, 2008 and audit activities commenced.

The audit team leader verified that the Calpine audit participants from Sirius Solutions, a consulting firm for Calpine, were authorized to answer questions during the audit.

During review of the first Standard, Calpine's Director, Government & Regulatory Affairs, NERC Regulatory Compliance for Calpine, indicated that Calpine Energy Services was not responsible for the GOP function for the Broad River Energy Facility. He indicated that the facility is tolled to Progress Energy and that pursuant to the terms of the current power purchase agreement, Progress Energy controlled operation of that facility. He also indicated that Progress Energy contested Calpine's determination that Progress was responsible for GOP functions of the facility. Calpine is the registered GOP for the facility and, was unable to provide an agreement assigning and accepting responsibility for the GOP function. Therefore, Calpine was held responsible for all applicable standards for the Broad River Energy Facility.

The audit team reviewed a memo regarding Calpine's corporate NERC procedures, signed by Calpine's Director, Government and Regulatory Affairs, NERC Corporate Reliability Compliance, and stating that all procedures relating to NERC Reliability Standards were posted and approved as of 9/18/07.

Audit

The audit team initially reviewed the registration status of Calpine with entity staff to verify applicability of each standard. Each standard's audit began with a recitation of each requirement. Calpine staff then presented evidence supporting requirement compliance, or cited evidence previously provided to the audit team. At that point, the evidence was reviewed and discussed until the team reached agreement on the evidence. By audit team consensus a determination of compliance was reached for each of the requirements, and communicated to Calpine staff before proceeding to the next requirement. At that point the team scribe would record the evidence presented to satisfy the requirement and the team's recommendation on that requirement using the RSAW.

The review of all applicable standards was completed at 5:42 p.m. CST, June 11, 2008 and the audit team met to review and discuss the findings. Following these discussions, the scribe collected all notes and evidence as needed and began to finalize the RSAW.

Exit Briefing

The audit team arrived at the Calpine office at 7:37 a.m., June 12, 2008. The audit team conducted a short meeting to review the upcoming exiting presentation. The ATL presented an exit briefing to the assembled audit team and entity staff at 8:00 a.m., June 12, 2008. This was followed by an informal response and questions from the Calpine staff. The exit briefing summarized the team's preliminary conclusions, including: any items of potential noncompliance or possible violation, with supporting information; areas of concern and the expected timeline for review and issuance of the audit report.

The ATL solicited both informal comments from Calpine staff, and requested that they complete and forward formal feedback forms for submission to NERC and SERC.

The audit team left the Calpine meeting room at 10:12 a.m. CDT, June 12, 2008.

Company Profile

Founded in 1984, Calpine is a U.S. power company with corporate offices located in Houston, Texas and San Jose, California. As of October 2007, Calpine's operating fleet included 82 power plants, with the capacity to generate nearly 24,000 megawatts of electricity in 18 states. These facilities are natural gas-fired and renewable geothermal power plants. At The Geysers in Northern California, Calpine harnesses naturally heated steam from the earth to create renewable electric power. As of March 2007, Calpine had two power plants, with a power output of more than 1,000 megawatts, under construction. Calpine has eight plants located in the SERC region with a total capacity of 5020 Megawatts.

Audit Specifics

The compliance audit was conducted on June 9-11, 2008 at the Calpine office in Houston, TX

Audit Team

Audit Team Role	Title	Company
Lead	Senior Compliance Auditor	SERC
Member	Senior Compliance Auditor	SERC
Member	Compliance Auditor	SERC
Member	Regional Compliance Coordinator	NERC
Member	Energy Industry Analyst	FERC - Office of Energy Markets and Reliability

Audit Team Role	Title	Company
Member	Engineer	FERC - Office of Energy Markets and Reliability
Member	Economist	FERC - Office of Enforcement
Member	Energy Industry Analyst	FERC - Office of Enforcement

Calpine Audit Participants Title and Organization

Title	Calpine Organization
Vice President, Government and Regulatory Affairs	Calpine Corporation
Director, Government and Regulatory Affairs, NERC Corporate Reliability Compliance	Calpine Corporation
Director, NERC Regulatory Compliance	Calpine Corporation
Director, NERC Compliance, Texas Region	Calpine Power Company
Senior Counsel	Calpine Corporation
Manager, Power Operations	Calpine Corporation
Consultant	Sirius Solutions
Consultant	Sirius Solutions

AUDIT RESULTS

Calpine Corporation was found to be in compliance with all but two of the NERC Reliability Standards that were audited. The audit team determined Calpine Corporation to be in possible violation of NERC Reliability Standards IRO-004-1, Requirement 4 – Reliability Coordination-Current Day Operations and PRC-005-1, Requirements 1 and 2 – Transmission and Generation Protection System Maintenance and Testing.

Calpine Energy Services was found to be in compliance with all but four of the NERC Reliability Standards that were audited. The audit team determined Calpine Energy Services to be in possible violation of IRO-004-1, Requirement 4 – Reliability Coordination-Current Day Operations; TOP-002-2, Requirement 3 – Normal Operations Planning, TOP-003-0, Requirement 1 – Planned Outage Coordination and TOP-005-1, Requirement 4 – Operational Reliability information.

Findings

Reliability Standard	Requirement	Finding
BAL-001-0	R1.	N/A
BAL-001-0	R2.	N/A
BAL-001-0	R3.	N/A
BAL-001-0	R4.	N/A
BAL-002-0	R1.	N/A
BAL-002-0	R2.	N/A
BAL-002-0	R3.	N/A
BAL-002-0	R4.	N/A
BAL-002-0	R5.	N/A
BAL-002-0	R6.	N/A
BAL-003-0	R1.	N/A
BAL-003-0	R2.	N/A
BAL-003-0	R3.	N/A
BAL-003-0	R4.	N/A
BAL-003-0	R5.	N/A
BAL-003-0	R6.	N/A
BAL-004-0	R1.	N/A
BAL-004-0	R2.	N/A
BAL-004-0	R3.	N/A
BAL-004-0	R4.	N/A
BAL-005-0	R1.	Compliant
BAL-005-0	R2.	N/A
BAL-005-0	R3.	N/A
BAL-005-0	R4.	N/A
BAL-005-0	R5.	N/A
BAL-005-0	R6.	N/A
BAL-005-0	R7.	N/A
BAL-005-0	R8.	N/A
BAL-005-0	R9.	N/A
BAL-005-0	R10.	N/A
BAL-005-0	R11.	N/A
BAL-005-0	R12.	N/A
BAL-005-0	R13.	N/A
BAL-005-0	R14.	N/A
BAL-005-0	R15.	N/A
BAL-005-0	R16.	N/A
BAL-005-0	R17.	N/A
BAL-006-1	R1.	N/A
BAL-006-1	R2.	N/A
BAL-006-1	R3.	N/A
BAL-006-1	R4.	N/A

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Reliability Standard	Requirement	Finding
BAL-006-1	R5.	N/A
CIP-001-1	R1.	Compliant
CIP-001-1	R2.	Compliant
CIP-001-1	R3.	Compliant
CIP-001-1	R4.	Compliant
CIP-002-1 through CIP-009-1		N/A
COM-001-1	R1.	N/A
COM-001-1	R2.	N/A
COM-001-1	R3.	N/A
COM-001-1	R4.	N/A
COM-001-1	R5.	N/A
COM-001-1	R6.	N/A
COM-002-2	R1.	Compliant
COM-002-2	R2.	N/A
EOP-001-0	R1.	N/A
EOP-001-0	R2.	N/A
EOP-001-0	R3.	N/A
EOP-001-0	R4.	N/A
EOP-001-0	R5.	N/A
EOP-001-0	R6.	N/A
EOP-001-0	R7.	N/A
EOP-002-2	R1.	N/A
EOP-002-2	R2.	N/A
EOP-002-2	R3.	N/A
EOP-002-2	R4.	N/A
EOP-002-2	R5.	N/A
EOP-002-2	R6.	N/A
EOP-002-2	R7.	N/A
EOP-002-2	R8.	N/A
EOP-002-2	R9.	N/A
EOP-003-1	R1.	N/A
EOP-003-1	R2.	N/A
EOP-003-1	R3.	N/A
EOP-003-1	R4.	N/A
EOP-003-1	R5.	N/A
EOP-003-1	R6.	N/A
EOP-003-1	R7.	N/A
EOP-003-1	R8.	N/A
EOP-004-1	R1.	N/A
EOP-004-1	R2.	Compliant
EOP-004-1	R3.	Compliant
EOP-004-1	R4.	N/A

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Reliability Standard	Requirement	Finding
EOP-004-1	R5.	N/A
EOP-005-1	R1.	N/A
EOP-005-1	R2.	N/A
EOP-005-1	R3.	N/A
EOP-005-1	R4.	N/A
EOP-005-1	R5.	N/A
EOP-005-1	R6.	N/A
EOP-005-1	R7.	N/A
EOP-005-1	R8.	N/A
EOP-005-1	R9.	N/A
EOP-005-1	R10.	N/A
EOP-005-1	R11.	N/A
EOP-006-1	R1.	N/A
EOP-006-1	R2.	N/A
EOP-006-1	R3.	N/A
EOP-006-1	R4.	N/A
EOP-006-1	R5.	N/A
EOP-006-1	R6.	N/A
EOP-008-0	R1.	N/A
EOP-009-0	R1.	N/A
EOP-009-0	R2.	N/A
FAC-003-1	R1.	N/A
FAC-003-1	R2.	N/A
FAC-003-1	R3.	N/A
FAC-003-1	R4.	N/A
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
FAC-013-1	R1.	N/A
FAC-013-1	R2.	N/A
INT-001-2	R1.	Compliant
INT-001-2	R2.	NA
INT-003-2	R1.	N/A
INT-004-1	R1.	Compliant
INT-004-1	R2.	Compliant
IRO-001-1	R1.	N/A
IRO-001-1	R2.	N/A
IRO-001-1	R3.	Compliant
IRO-001-1	R4.	N/A
IRO-001-1	R5.	N/A

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Reliability Standard	Requirement	Finding
IRO-001-1	R6.	N/A
IRO-001-1	R7.	N/A
IRO-001-1	R8.	Compliant
IRO-001-1	R9.	N/A
IRO-003-2	R1.	N/A
IRO-003-2	R2.	N/A
IRO-004-1	R1.	N/A
IRO-004-1	R2.	N/A
IRO-004-1	R3.	N/A
IRO-004-1	R4.	Possible Violation
IRO-004-1	R5.	N/A
IRO-004-1	R6.	N/A
IRO-004-1	R7.	N/A
IRO-005-1	R1.	N/A
IRO-005-1	R2.	N/A
IRO-005-1	R3.	N/A
IRO-005-1	R4.	N/A
IRO-005-1	R5.	N/A
IRO-005-1	R6.	N/A
IRO-005-1	R7.	N/A
IRO-005-1	R8.	N/A
IRO-005-1	R9.	N/A
IRO-005-1	R10.	N/A
IRO-005-1	R11.	N/A
IRO-005-1	R12.	N/A
IRO-005-1	R13.	Compliant
IRO-005-1	R14.	N/A
IRO-005-1	R15.	N/A
IRO-005-1	R16.	N/A
IRO-005-1	R17.	N/A
IRO-006-3	R1.	N/A
IRO-006-3	R2.	N/A
IRO-006-3	R3.	N/A
IRO-006-3	R4.	N/A
IRO-006-3	R5.	N/A
IRO-006-3	R6.	N/A
IRO-014-1	R1.	N/A
IRO-014-1	R2.	N/A
IRO-014-1	R3.	N/A
IRO-014-1	R4.	N/A
IRO-015-1	R1.	N/A
IRO-015-1	R2.	N/A

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Reliability Standard	Requirement	Finding
IRO-015-1	R3.	N/A
IRO-016-1	R1.	N/A
IRO-016-1	R2.	N/A
PER-002-0	R1.	N/A
PER-002-0	R2.	N/A
PER-002-0	R3.	N/A
PER-002-0	R4.	N/A
PER-003-0	R1.	N/A
PER-004-1	R1.	N/A
PER-004-1	R2.	N/A
PER-004-1	R3.	N/A
PER-004-1	R4.	N/A
PER-004-1	R5.	N/A
PRC-004-1	R1.	N/A
PRC-004-1	R2.	Compliant
PRC-004-1	R3.	Compliant
PRC-005-1	R1.	Possible Violation
PRC-005-1	R2.	Possible Violation
PRC-008-0	R1.	N/A
PRC-008-0	R2.	N/A
PRC-010-0	R1.	N/A
PRC-010-0	R2.	N/A
PRC-011-0	R1.	N/A
PRC-011-0	R2.	N/A
PRC-016-0	R1.	N/A
PRC-016-0	R2.	N/A
PRC-016-0	R3.	N/A
PRC-017-0	R1.	N/A
PRC-017-0	R2.	N/A
PRC-021-1	R1.	N/A
PRC-021-1	R2.	N/A
TOP-002-2	R1.	N/A
TOP-002-2	R2.	N/A
TOP-002-2	R3.	Possible Violation
TOP-002-2	R4.	N/A
TOP-002-2	R5.	N/A
TOP-002-2	R6.	N/A
TOP-002-2	R7.	N/A
TOP-002-2	R8.	N/A
TOP-002-2	R9.	N/A
TOP-002-2	R10.	N/A
TOP-002-2	R11.	N/A

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Reliability Standard	Requirement	Finding
TOP-002-2	R12.	N/A
TOP-002-2	R13.	Compliant
TOP-002-2	R14.	Compliant
TOP-002-2	R15.	Compliant
TOP-002-2	R16.	N/A
TOP-002-2	R17.	N/A
TOP-002-2	R18.	Compliant
TOP-002-2	R19.	N/A
TOP-003-0	R1.	Possible Violation
TOP-003-0	R2.	Compliant
TOP-003-0	R3.	Compliant
TOP-003-0	R4.	NA
TOP-004-1	R1.	N/A
TOP-004-1	R2.	N/A
TOP-004-1	R3.	N/A
TOP-004-1	R4.	N/A
TOP-004-1	R5.	N/A
TOP-004-1	R6.	N/A
TOP-005-1	R1.	N/A
TOP-005-1	R2.	N/A
TOP-005-1	R3.	N/A
TOP-005-1	R4.	Possible Violation
TOP-007-0	R1.	N/A
TOP-007-0	R2.	N/A
TOP-007-0	R3.	N/A
TOP-007-0	R4.	N/A
TPL-001-0	R1.	N/A
TPL-001-0	R2.	N/A
TPL-001-0	R3.	N/A
TPL-002-0	R1.	N/A
TPL-002-0	R2.	N/A
TPL-002-0	R3.	N/A
TPL-003-0	R1.	N/A
TPL-003-0	R2.	N/A
TPL-003-0	R3.	N/A
TPL-004-0	R1.	N/A
TPL-004-0	R2.	N/A
VAR-001-1	R1.	N/A
VAR-001-1	R2.	N/A
VAR-001-1	R3.	N/A
VAR-001-1	R4.	N/A
VAR-001-1	R5.	Compliant

Reliability Standard	Requirement	Finding
VAR-001-1	R6.	N/A
VAR-001-1	R7.	N/A
VAR-001-1	R8.	N/A
VAR-001-1	R9.	N/A
VAR-001-1	R10.	N/A
VAR-001-1	R11.	N/A
VAR-001-1	R12.	N/A
VAR-002-1	R1.	Compliant
VAR-002-1	R2.	Compliant
VAR-002-1	R3.	Compliant
VAR-002-1	R4.	Compliant
VAR-002-1	R5.	Compliant

Compliance Culture

Although documentation of Calpine’s Compliance Program, received pre-audit, indicated an excellent organizational structure and proactive approach to compliance, the ensuing audit revealed serious problems with their program:

- Some program documents (policies, procedures, programs, etc.) were not readily available and identifiable as to effective dates.
- Corporate overarching and plant specific program documents did not address all elements of the Standard or its requirements.
- Many required elements of program documents referenced a multitude of additional documents, many of which had been revised several times, and even the entity’s Subject Matter Experts (SME) had trouble finding them.
- The entity’s SMEs were not thoroughly familiar with their documents, having to hunt for specifics in both the program documents and referenced documents.
- Entity SMEs did not have appropriate support staff to facilitate the location and presentation of evidence in relation to specific requests.
- The entity’s evidence of having maintained Protection System components on schedule consisted of several hundred pages of device-by-device maintenance results provided by the contractor.

The entity did not have sufficient support staff available to provide audit evidence to the Audit Team Lead on conclusion of the audit. The ATL waited an additional two hours for delivery of audit evidence.

Determination Summary for Possible Violations Identified in an Audit

Regional Tracking Number 08-051
Entity Calpine Energy Services
Audit Date 6/12/2008
Standard TOP-005-1
Requirement 4

Sufficient Basis for Violation

Factual Basis During a scheduled audit on June 9, 2008 through June 11, 2008, the Entity was unable to produce evidence confirming that they were providing information requested by the Host Balancing Authority and Transmission Operator for operational reliability assessments and coordination of reliable operations.

The Entity subsequently provided SERC with evidence on 6/25/08, in the form of OATI tags, that they are and have been providing the required information. SERC compliance requested additional OATI tags from the Entity for the months of either October or December 2007 for each of the 8 plants. On 7/14/08 SERC received the additional evidence. The OATI tag print screens were reviewed to ensure unique tag code, creation / approval of tag date, start date, and generation and market flow information.

This requirement is assigned a Medium VRF, as approved by FERC.

SERC Staff applied a Lower VSL to this violation, consistent with the FERC approved VSL matrix because it was subsequently determined that the Entity did in fact have the evidence even though it failed to provide the evidence at the compliance audit.

Conclusion Violation Summary The Entity was found in violation of TOP-005-1, R4 for its failure to provide evidence, at its duly-noticed scheduled compliance audit, that it was providing information as requested by its Host Balancing Authorities and Transmission Operators to enable them to conduct operational reliability assessments and coordinate reliable operations. The Entity failed to properly prepare for the audit so as to be able to provide evidence upon request from SERC. In as much as the Entity was subsequently able to produce evidence of compliance with the requirement, the violation, while not excused, is considered a documentation-only issue and a lower VSL is applied. This is a summary determination, please refer to the detailed determination for additional information.

NERC BOTCC Determination Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008 Guidance Order,¹² the NERC BOTCC reviewed the Settlement Agreement and supporting documentation on November 9, 2009. The NERC BOTCC approved the Settlement Agreement, including SERC's imposition of a financial penalty of twenty thousand dollars (\$20,000) against CES, and other actions to promote prospective compliance required under the terms and conditions of the Settlement Agreement. In approving the Settlement Agreement, the NERC BOTCC reviewed the applicable requirements of the Commission-approved Reliability Standards and the underlying facts and circumstances of the alleged violations at issue.

Determination Summary for Possible Violations Identified in an Audit

***NERC Violation
Number*** SERC200800136

NOC Number NOC-245

NOP Number NOC-245

***FERC Docket
Number*** NP10-43-000

Determination Summary for Possible Violations Identified in an Audit

Regional Tracking Number 08-054
Entity Calpine Energy Services
Audit Date 6/12/2008
Standard TOP-003-0
Requirement 1

Sufficient Basis for Violation

Factual Basis During a scheduled audit on June 9, 2008 through June 11, 2008, the Entity was unable to produce evidence confirming that they were providing outage information to the Transmission Operator for operational reliability assessments and coordination of reliable operations. The entity subsequently provided SERC with evidence on 6/25/08, in the form of OATI tags, that they are and have been providing the required information. SERC compliance requested additional OATI tags from the Entity for the months of either October or December 2007 for each of the 8 plants. On 7/14/08 SERC received the additional evidence. The OATI tag print screens were reviewed to ensure unique tag code, creation / approval of tag date, start date, and generation and market flow information.

This requirement is assigned a Medium VRF, as approved by FERC.

The VSL indicated for a violation of this nature is Severe, based on the FERC approved VSL Matrix, but SERC Staff applied a Lower VSL to this particular violation because it was subsequently determined that the Entity did in fact have the evidence even though it failed to provide the evidence at the compliance audit.

Conclusion Violation Summary The Entity was found in violation of TOP-003-0, R1 for its failure to provide evidence, at its duly-noticed scheduled compliance audit, that it was providing outage information daily to its Transmission Operator for scheduled generator outages planned for the next day. The Entity failed to properly prepare for the audit so as to be able to provide evidence upon request from SERC. In as much as the Entity was subsequently able to produce evidence of compliance with the requirement, the violation, while not excused, is considered a documentation-only issue and a lower VSL is applied. This is a summary determination, please refer to the detailed determination for additional information.

NERC BOTCC Determination Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008 Guidance Order,¹² the NERC BOTCC reviewed the Settlement Agreement and supporting documentation on November 9, 2009. The NERC BOTCC approved the Settlement Agreement, including SERC's imposition of a financial penalty of twenty thousand dollars (\$20,000) against CES, and other actions to promote prospective compliance required under the terms and conditions of the Settlement Agreement. In approving the Settlement Agreement, the NERC BOTCC reviewed the applicable requirements of the Commission-approved Reliability Standards and the underlying facts and circumstances of the alleged violations at issue.

NERC Violation Number SERC200800139

Determination Summary for Possible Violations Identified in an Audit

NOC Number NOC-245

NOP Number NOC-245

***FERC Docket
Number*** NP10-43-000

Determination Summary for Possible Violations Identified in an Audit

Regional Tracking Number 08-055
Entity Calpine Energy Services
Audit Date 6/12/2008
Standard TOP-002-2
Requirement 3

Sufficient Basis for Violation

Factual Basis During a scheduled audit on June 9, 2008 through June 11, 2008, the Entity was unable to produce evidence confirming that they were providing information to the Host Balancing Authority and Transmission Service Provider current, next-day, and seasonal operations information. The entity subsequently provided SERC with evidence on 6/25/08, in the form of OATI tags, that they are and have been providing the required information. SERC compliance requested additional OATI tags from the Entity for the months of either October or December 2007 for each of the 8 plants. On 7/14/08 SERC received the additional evidence. The OATI tag print screens were reviewed to ensure unique tag code, creation / approval of tag date, start date, and generation and market flow information.

This requirement is assigned a Medium VRF, as approved by FERC.

The VSL indicated for a violation of this nature is Moderate, based on the FERC approved VSL Matrix, but SERC Staff applied a Lower VSL to this particular violation because it was subsequently determined that the Entity did in fact have the evidence even though it failed to provide the evidence at the compliance audit.

Conclusion Violation Summary The Entity was found in violation of TOP-002-2, R3 for its failure to provide evidence, at its duly-noticed scheduled compliance audit, that it was coordinating its current-day, next-day, and seasonal operations with its Host Balancing Authority and Transmission Service Provider. The Entity failed to properly prepare for the audit so as to be able to provide evidence upon request from SERC. In as much as the Entity was subsequently able to produce evidence of compliance with the requirement, the violation, while not excused, is considered a documentation-only issue and a lower VSL is applied. This is a summary determination, please refer to the detailed determination for additional information.

NERC BOTCC Determination Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008 Guidance Order,¹² the NERC BOTCC reviewed the Settlement Agreement and supporting documentation on November 9, 2009. The NERC BOTCC approved the Settlement Agreement, including SERC's imposition of a financial penalty of twenty thousand dollars (\$20,000) against CES, and other actions to promote prospective compliance required under the terms and conditions of the Settlement Agreement. In approving the Settlement Agreement, the NERC BOTCC reviewed the applicable requirements of the Commission-approved Reliability Standards and the underlying facts and circumstances of the alleged violations at issue.

NERC Violation Number SERC200800140

Determination Summary for Possible Violations Identified in an Audit

NOC Number NOC-245

NOP Number NOC-245

***FERC Docket
Number*** NP10-43-000

Determination Summary for Possible Violations Identified in an Audit

***Regional
Tracking Number*** 08-056

Entity Calpine Energy Services

Audit Date 6/12/2008

Standard IRO-004-1

Requirement 4

***Sufficient Basis
for Violation***

Factual Basis During a scheduled audit on June 9, 2008 through June 11, 2008, the Entity was unable to produce evidence confirming that they were providing information required for system studies. The Entity's Manager, Power Operations, stated that they have not been asked for such information by the RC, however, they can provide daily availability reports and OATI e-tags as evidence that the RC was receiving information on the Entity's generating units. The Entity subsequently provided SERC with evidence on 6/25/08, in the form of OATI tags, that they are and have been providing the required information. SERC compliance requested additional OATI tags from the Entity for the months of either October or December 2007 for each of the 8 plants. The OATI tag print screens were reviewed to ensure unique tag code, creation / approval of tag date, start date, and generation and market flow information.

This requirement is assigned a High VRF, as approved by FERC.

SERC Staff applied a Lower VSL to this particular violation because it was subsequently determined that the Entity did in fact have the evidence even though it failed to provide the evidence at the compliance audit.

***Conclusion
Violation
Summary*** The Entity was found in violation of IRO-004-1, R4 for its failure to provide evidence, at its duly-noticed scheduled compliance audit, that it was providing information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions. The Entity failed to properly prepare for the audit so as to be able to provide evidence upon request from SERC. In as much as the Entity was subsequently able to produce evidence of compliance with the requirement, the violation, while not excused, is considered a documentation-only issue and a lower VSL is applied. This is a summary determination, please refer to the detailed determination for additional information.

***NERC BOTCC
Determination*** Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008 Guidance Order,¹² the NERC BOTCC reviewed the Settlement Agreement and supporting documentation on November 9, 2009. The NERC BOTCC approved the Settlement Agreement, including SERC's imposition of a financial penalty of twenty thousand dollars (\$20,000) against CES, and other actions to promote prospective compliance required under the terms and conditions of the Settlement Agreement. In approving the Settlement Agreement, the NERC BOTCC reviewed the applicable requirements of the Commission-approved Reliability Standards and the underlying facts and circumstances of the alleged violations at issue.

***NERC Violation
Number*** SERC200800141

Determination Summary for Possible Violations Identified in an Audit

NOC Number NOC-245

NOP Number NOC-245

***FERC Docket
Number*** NP10-43-000