



Compliance Audit Report Public Version

**N.C. Electric Membership Corporation
(NCEMC)
NCR01279
May 19-20, 2008**

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

June 19, 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.

N.C. Electric Membership Corporation (NCEMC) was audited on May 19-20, 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 NCEMC's registered functions. NCEMC is registered with SERC Reliability Corporation (SERC) as a Resource Planner (RP), Distribution Provider, (DP), Generator Operator (GOP), Generator Owner (GO), Purchasing-Selling Entity (PSE) and Load-Serving Entity (LSE). Twenty-five standards were selected and identified to NCEMC as subject to review during this audit. The audit focused on documents and other evidence provided to SERC by the staff of NCEMC, 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.

NCEMC 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 NCEMC as subject to this audit. NCEMC staff responded by providing evidence in the form of reports, procedures, studies, and other documents. NCEMC 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 NCEMC was judged to be compliant. Likewise, if any of the requirements or sub-requirements were not fully met, then NCEMC was judged to have a possible violation of the standard. A score of 100% is required for compliance.

The audit team determined that NCEMC does not own or operate Under Voltage Load Shedding or Special Protection Systems. NCEMC is not part of the Regional Restoration Plan; therefore, 6 of the 25 standards applicable to NCEMC were not assessed. These standards are EOP-009-0, PRC-010-0, PRC-011-0, PRC-016-0, PRC-017-0 and PRC-021-1.

The audit team found NCEMC to be in compliance with all of the NERC Reliability Standards in the audit scope.

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:

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

- Independently review NCEMC compliance with the requirements of the reliability standards that are applicable to NCEMC based on the NCEMC 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 the NCEMC compliance culture.

Scope

The scope of the audit of NCEMC included all monitored standards that are in the NERC 2008 CMEP. Based on the confirmed registration of NCEMC, the 25 Reliability Standards previously indentified were the focus of the compliance audit. Of the 25 standards, 6 standards were not assessed. These standards are EOP-009-0, PRC-010-0, PRC-011-0, PRC-016-0, PRC-017-0 and PRC-021-1. 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 NCEMC in advance of the audit. Work history and conflict of interest forms submitted by each audit team member were provided to NCEMC upon request. SERC has confirmed that confidentiality agreements have been executed by, and are on file for SERC Industry Volunteers. NCEMC 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. NCEMC accepted the audit team member participants with no objections.

On-site Audit

NCEMC was contacted by letter on December 17, 2007 by SERC staff. The letter provided NCEMC 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 NCEMC both verify their currently registered functions and complete and return an attached Pre-Audit Survey within 30 days.

On February 21, 2008, SERC staff forwarded an Audit Detail Letter to NCEMC, again confirming the scheduled audit dates and confirming NCEMC's registered functions within SERC. The Audit Detail Letter also provided NCEMC with notice of the Standards in Audit Scope, Proposed Audit Schedule, Audit Team Roster (with industry affiliations), and requested that NCEMC 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, NCEMC 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 NCEMC. The standards were grouped and scheduled for review to make the most efficient use of NCEMC staff's time. The audit team moderator (Audit Team Lead (ATL) or designee) initiated dialogue on each standard requirement and requested compliance evidence. This evidence and NCEMC's staff response was documented. NCEMC staff was requested to show valid evidence of meeting each applicable requirement and sub-requirement contained in the 25 standards that had been previously identified by SERC to NCEMC as subject to this audit. NCEMC staff responded by providing evidence in the form of reports, procedures, studies, and other documents. NCEMC 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 NCEMC 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 NCEMC did not provide sufficient evidence to support a finding of compliance, then a possible violation was identified by the team and NCEMC staff was informed.

Audit Overview

The audit team arrived at the NCEMC offices at 2:45 p.m., May 19, 2008. Each member of the audit team was introduced and professional affiliation identified. The staff of NCEMC was introduced, and general housekeeping matters explained. At 2:50 p.m., May 19, 2008 Steve Gibe, Senior Compliance Auditor and 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 NCEMC specifically. The ATL introduced and reviewed the standards to be covered in the audit, and addressed both the expectations of NCEMC 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 NCEMC staff made a brief presentation covering the background of NCEMC and its compliance activities took place. The staff of NCEMC was excused and the audit team reviewed team assignments and a general overview for preparation of the audit activities starting on the next day.

The audit team arrived at the NCEMC offices at 7:45 a.m., May 20, 2008 to start the audit session.

Audit

The audit team initially reviewed the registration status of NCEMC with entity staff to verify applicability of each standard. Each standard's audit began with a recitation of each requirement. NCEMC 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 NCEMC 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 3:35 p.m., May 20, 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 ATL presented an exit briefing to the assembled audit team and entity staff at 4:20 p.m., May 20, 2008. This was followed by an informal response and questions from the NCEMC 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, any added information required and the expected timeline for review and issuance of the audit report.

The ATL solicited both informal comments from NCEMC staff, along with requesting that they fill out formal feedback forms for submission to NERC and SERC.

The audit team left the NCEMC meeting room at 5:10 p.m., May 20, 2008.

Company Profile

NCEMC is a generation and transmission cooperative providing power supply to meet the full power requirements of 21 member distribution electric cooperatives and partial power supply requirements of 4 member distribution electric cooperatives and related services in the state of North Carolina including:

- Operation of a load management system
- Engineering and construction management
- Power supply planning
- Demand Side Management (DSM) planning

NCEMC acquires the power it sells to its member cooperatives in a number of ways, including:

- Ownership of a 56.25 percent of Unit 1 (644 megawatts of power) of the Catawba Nuclear Station in York County, SC
- NCEMC-owned-and-operated peaking generators on the Outer Banks: one at Buxton (15 megawatts) and the other at Ocracoke (3 megawatts)
- Purchases from investor-owned utilities, such as Progress Energy, American Electric Power and SCANA (SCE&G)
- NCEMC owns two natural gas peak-load power plants in Anson and Richmond counties, Anson County Plant and Hamlet Plant, with a combined rating of 620 megawatts of capacity.
- Aces Power Marketing (APM) handles NCEMC's power marketing purchases, scheduling and 24 hour load monitoring

Audit Specifics

The compliance audit was conducted on May 19-20, 2008 at the NCEMC office in Raleigh, N.C.

Audit Team

Audit Team Role	Name	Title	Company
Lead	Steve Gibe	Senior Compliance Auditor	SERC
Member	Michael Vastano	Compliance Auditor	SERC
Member	Kevin Berent	Associate Compliance Auditor	SERC

NCEMC Audit Participants Title and Organization

Title	Organization
Senior Vice President of Corporate Strategy	NCEMC
Director, Engineering & Technical Field Services	NCEMC
Manager, Transmission Resources	NCEMC
Administrative Specialist, Power Supply	NCEMC
Manager of Energy Operations	NCEMC
Manager, Engineering Services	NCEMC
Manager, Technical Services	NCEMC
Project Manager	NCEMC
Portfolio Director South East	ACES Power Marketing
Director, Energy Management System	EMC Technologies

AUDIT RESULTS

The audit team found NCEMC to be in compliance with all of the NERC Reliability Standards in the audit scope. Please see Findings Table below.

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

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Critical Energy Infrastructure Information) – Has Been Removed

Reliability Standard	Requirement	Finding
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
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.	NA
EOP-001-0	R1.	N/A
EOP-001-0	R2.	N/A
EOP-001-0	R3.	N/A

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Reliability Standard	Requirement	Finding
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.	Not Assessed
EOP-004-1	R3.	Compliant
EOP-004-1	R4.	N/A
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

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Reliability Standard	Requirement	Finding
EOP-006-1	R6.	N/A
EOP-008-0	R1.	N/A
EOP-009-0	R1.	Not Assessed
EOP-009-0	R2.	Not Assessed
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.	NA
INT-004-1	R2.	Compliant
IRO-001-1	R1.	N/A
IRO-001-1	R2.	N/A
IRO-001-1	R3.	N/A
IRO-001-1	R4.	N/A
IRO-001-1	R5.	N/A
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.	Compliant
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

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Reliability Standard	Requirement	Finding
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.	N/A
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
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.	Compliant

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Reliability Standard	Requirement	Finding
PRC-005-1	R2.	Compliant
PRC-008-0	R1.	Compliant
PRC-008-0	R2.	Compliant
PRC-010-0	R1.	Not Assessed
PRC-010-0	R2.	Not Assessed
PRC-011-0	R1.	Not Assessed
PRC-011-0	R2.	Not Assessed
PRC-016-0	R1.	Not Assessed
PRC-016-0	R2.	Not Assessed
PRC-016-0	R3.	Not Assessed
PRC-017-0	R1.	Not Assessed
PRC-017-0	R2.	Not Assessed
PRC-021-1	R1.	Not Assessed
PRC-021-1	R2.	Not Assessed
TOP-002-2	R1.	N/A
TOP-002-2	R2.	N/A
TOP-002-2	R3.	Compliant
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
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.	Compliant
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

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Reliability Standard	Requirement	Finding
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.	Compliant
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
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

Information regarding the compliance culture of NCEMC was obtained from other sources and has been documented.