



Midwest Reliability Organization Compliance Audit Report

**Nebraska Public Power District (NPPD)
November 14-15, 2007**

NCR01018

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

Public Version

**Report Date:
November 28, 2007**

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EXECUTIVE SUMMARY

There were 35 Reliability Standards with a total of 138 requirements reviewed during the audit. Out of the 138 total requirements, there are 108 that were measurable and assessed for compliance. Out of the 108 total requirements, the findings detected:

- 108 Full Compliance
- 0 Alleged Non-Compliance
- 30 Not Applicable

AUDIT PROCESS

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 NPPD's compliance with the requirements of the reliability standards that are applicable to NPPD based on the NPPD's registered functions.
- Validate compliance with applicable reliability standards from the NERC 2007 Implementation Plan list of actively monitored standards.

Scope

The NPPD Compliance audit was conducted as a part of its normal three year cycle. The audit was conducted under the guidelines of the 2007 CMEP. All applicable NERC and MRO standards were reviewed during this audit.

Methodology

NPPD supplied the MRO office with the majority of the supporting documentation needed to show compliance on NPPD's behalf prior to the site visit. The only documentation not provided in advance was confidential in nature; NPPD produced the necessary documentation once the team arrived on site in Doniphan.

Prior to the site visit, MRO staff reviewed the documentation in the MRO offices. The compliance staff utilized the NERC Standards and the Reliability Standards Auditor Worksheets (RSAW) while reviewing the supporting documents and the Audit Guide (questionnaire) provided by NPPD.

After reviewing the supporting documentation, the MRO staff developed a set of questions for the subject matter experts at NPPD. Once on site, the team of auditors was able to review the necessary documents and conduct interviews of the subject matter experts. The operations staff was also interviewed to verify the documentation and tools to conduct their jobs were available to them at all times.

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

Company Profile

Registered Entity Overview:

Nebraska Public Power District (NPPD) is Nebraska's largest electric utility, with a chartered territory including all or parts of 91 of Nebraska's 93 counties. The company was formed on January 1, 1970, when Consumers Public Power District, Platte Valley Public Power and Irrigation District and Nebraska Public Power System merged to become Nebraska Public Power District. Merger properties also included assets formerly operated by Loup River Public Power District. NPPD is a public corporation and political subdivision of the state of Nebraska. The utility is governed by an 11-member Board of Directors, which is popularly elected from NPPD's chartered territory.

NPPD's all time peak load of 2670 MW occurred on Sunday July 30th, 2006 at hour ending 1900.

NPPD has interconnections with: Western Area Power Administration Upper Great Plains region (2 at 345 kV, 5 at 230 kV, and 5 at 115 kV), the MidAmerican Energy Company (2 at 345 kV), Aquila (1 at 345 kV), Associated Electric Cooperative, Inc (1 at 345 kV), Sunflower Electric Cooperative, Inc. (1 at 345 kV), Omaha Public Power District (1 at 345 kV, 3 at 161 kV, 5 at 69 kV and 3 at 13.2 kV), Lincoln Electric System (2 at 345 kV and 4 at 115 kV), and Western Area Power Administration Rocky Mountain Region (1 via a back to back DC tie interconnected at 230 kV AC).

NPPD owns 3178 MW of generating capacity. NPPD uses a mix of generating facilities to meet the needs of its customers. The mix includes a nuclear power plant, three steam plants (Canady, Gerald Gentleman Station, and Sheldon), a combined-cycle gas facility (Beatrice Power Station), two wind generation facilities, nine hydro facilities, nine diesel plants, and three gas-fired peaking units. NPPD also has firm purchase agreements with Western Area Power Administration which is operated by the federal government. The average mix of fuel to supply NPPD's customers in a typical year is 59.08 percent from coal, 22.77 percent from nuclear, 2.59 percent from hydro, 1.01 percent from wind, 2.41 percent from gas or oil, and 12.16 percent from purchases.

NPPD operates transmission at 115 kV, 230 kV and 345 kV. NPPD operates 2,717 miles of 115kV, 682 miles of 230 kV, and 895 miles of 345 kV.

NPPD is mainly a generator and/or transmitter selling the power to 52 communities and 24 public power district or rural cooperatives who serve the customer directly. Because of the role as both a retail (approximately 87,000 customers) and wholesale provider, an estimated 1 million people in Nebraska depend on NPPD for electricity.

Registered Entity Functions Assessed During Audit:

BA	DP	GOP	GO	LSE	PA	PSE	RC	RP	RSG	TOP	TO	TP	TSP
X	X	X	X	X		X		X		X	X	X	X

Audit Specifics

The compliance audit was conducted on November 14-15, 2007 at the Nebraska Public Power District office in Doniphan, Nebraska.

MRO Audit Team

Audit Team Role	Name	Title	Company
Lead	Jim Burley	Principal Compliance Associate	Midwest Reliability Organization (MRO)
Member	Russ Mountjoy	Principal Compliance Associate	MRO
Member	Riaz Islam	Engineer	MRO
Member	Ellen Oswald	Regional Compliance Program Coordinator	North American Reliability Corp. (NERC)

NPPD Audit Participants

Title	NPPD Organization
Manager	System Control
Vice President	Customer Service and Delivery
Vice President	Energy Supply
Manager	Security
Consultant	Reliability Standards and Compliance
Trainer	System Control
Supervisor	System Control Technology
Trainer	System Operations
Supervisor	Transmission System Control
Manager	Energy Supply
Supervisor	PM Dept.
Superintendent	Transmission Lines
Analyst	System Control
Engineer	
Supervisor	Transmission Planning
Engineer	Transmission Planning
System Operator	Transmission
System Operator	Control Area
Team Leader	System Operations
Team Leader	CSO Technical Training

AUDIT RESULTS

- NPPD has supplied the audit team with a significant amount of supporting documentation. The team received one CD with approximately 450 files which represented approximately 95% of the supporting documentation needed. Each file name identified the Standard and requirement/sub-requirement it supported. The audit team reviewed each requirement and then identified how NPPD met the requirement in the supporting documentation. Any questions the team had regarding the documents were recorded and addressed while on site.
- NPPD supplied the audit team with a number of documents covering policies and procedures that take into consideration the reliability standards. To show NPPD follows these procedures, they openly discussed instances where these procedures had been put into action.
- All NPPD personnel were open in their communications with the audit team. Management allowed employees to speak freely without interruption.
- Through their supporting documentation, management interviews, and subject matter expert interviews, NPPD has exhibited a commitment to safe and reliable operation of the bulk electric system.
- NPPD had one mitigation plan on file from 2006 (PER-002-3 – Operating Personnel and Training). Objectives were not stated and defined to meet the knowledge and competencies required to adhere to the Reliability Standards. The audit team reviewed the supporting documentation and find NPPD is now compliant with this Standard.

Findings

Reliability Standard	Finding
BAL-001-0	Compliant
BAL-002-0	Compliant
BAL-003-0	Compliant
CIP-001-1	Compliant
CIP-002-1 through CIP-009-1	Compliant
COM-001-1	Compliant
EOP-001-0	Compliant
EOP-003-1	Compliant
EOP-005-1	Compliant
EOP-008-0	Compliant
EOP-009-0	Compliant
FAC-003-1	Compliant
FAC-008-1	Compliant
FAC-009-1	Compliant
IRO-001-1	Compliant
IRO-004-1	Compliant
PER-002-0	Compliant
PER-003-1	Compliant
PRC-004-1	Compliant
PRC-005-1	Compliant
PRC-008-0	Compliant
PRC-010-0	N/A
PRC-011-0	N/A
PRC-016-0	Compliant
PRC-017-0	Compliant
PRC-021-1	N/A
TOP-003-0	Compliant
TOP-004-1	Compliant
TOP-005-1	Compliant
TOP-007-0	Compliant
TPL-001-0	Compliant
TPL-002-0	Compliant
TPL-003-0	Compliant
TPL-004-0	Compliant
VAR-001-1	Compliant
MRO-MBAL- 002-0	Compliant

Conclusions

The Audit Team found the **NPPD** staff to be very professional and dedicated to the reliable operation of the power system under their control. The Audit Team would like to thank **NPPD** for being well prepared, and for being candid with their comments and with their own assessment of compliance. We also thank them for their hospitality and for making the audit team feel welcome.

Thank you

MRO Compliance Office

SUMMARY OF NPPD RESPONSE TO THE AUDIT FINDINGS

NPPD did not have any areas of non-compliance identified.. In the post audit survey, NPPD identified areas in the audit process to be improved:

- Develop a secure FTP site to submit supporting documentation
- Clarify timing requirements in the pre-audit documentation

NPPD has a better understanding of the compliance process as a result of the audit and will apply this knowledge to the remaining standards that were not actively monitored by the 2007 Compliance Audit.