



NORTHEAST POWER COORDINATING COUNCIL, INC.  
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# **Compliance Audit Report Public Version**

**Danvers Electric Division  
NERC ID# NCR07056**

**May 11 to May 15, 2009**

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

**May 15, 2009**

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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.

The off-site compliance audit of Danvers Electric Division (DED), NERC ID #NCR07056 was conducted between May 11 and May 15, 2009. At the time of the audit, DED was registered for the DP and LSE functions. The audit was completed using data submitted by DED prior to the start of the off-site audit and data provided as a result of questions that arose during the audit.

The auditor evaluated DED's compliance with 11 reliability standards and 32 requirements/sub-requirements in the 2009 NERC Compliance Monitoring and Enforcement Program (CMEP). The audit reviewed reliability standards identified in the NERC 2009 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each reliability standard.

Of the 11 standards and 32 requirements and sub-requirements audited for the functions DED is registered, 6 standards and 11 requirements and sub-requirements were judged to be compliant, and 5 standards and 21 requirements and sub-requirements were judged to be not applicable.

DED staff provided overviews of each standard, resulting in a more clear understanding of their business model and accelerated the audit process. The evidence provided to demonstrate compliance was well presented and well organized. The audit team would like to thank the DED staff for their support offered throughout the audit.

There were no ongoing or recently completed mitigation plans and, therefore, none were reviewed by the audit team.

## 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 to:

- Independently review Danvers Electric Division's compliance with the requirements of the reliability standards that are applicable to DED based on DED's registered functions.

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

- Validate compliance with applicable reliability standards from the NERC 2009 Implementation Plan list of actively monitored standards and additional NERC reliability standards selected by NERC.
- Validate compliance with applicable Regional Standards from the NPCC 2009 Implementation Plan list of actively monitored standards.
- Validate evidence of self-reported violations and previous self-certifications and confirm compliance with other requirements of the reliability standard.
- Review the status of associated mitigation plans.
- Observe and document Danvers Electric Division's compliance program and culture.

### **Scope**

The audit included all standards identified in the February 3, 2009 audit letter. The audit was a regularly scheduled audit and no self-reported violations or compliance investigations were involved in the audit.

At the time of the audit, DED was registered for the functions DP and LSE. The audit team evaluated DED for compliance during the period of June 18, 2007 to May 15, 2009

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

Confidentiality and Conflict of Interest of the audit team are governed under the Delegation Agreement with NERC and Section 1500 of the NERC Rules of Procedure.

The audited entity was informed in advance of the audit that the independent contractors executed confidentiality agreements and code of conduct documentation was in place for the NERC representative and regional entity staff. Work history and conflict of interest forms submitted by each audit team member are on file in the NPCC corporate offices. 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 interfere with the audit team member's impartial performance of duties. The audited entity accepted the audit team member participants with no objections.

### **Off-site Audit**

DED was provided with a pre-audit request letter identifying the standards and requirements subject to audit. The audit letter was sent to DED more than 60 days in advance of the scheduled audit. This was an off-site audit conducted every six years or as determined to be necessary by the region. DED had not self reported any violations. DED was registered as the following functions: DP and LSE in NPCC.

In all cases, the auditors requested interviews with DED employees representing subject matter expertise regarding all of the registered functions of DED. These interviews resulted in data requests that, in conjunction with the submitted evidence, would provide the auditor with a basis for professional judgment when validating compliance with reliability standards.

## ***Methodology***

The auditor prepared reliability standard audit worksheets (RSAWs) to evaluate each standard. The RSAWs are used to ensure consistency and to document evidence of compliance or non-compliance with the standards. All relevant documents are considered and to the extent they form a portion of the audit trail are referenced in the RSAWs.

## ***Audit Overview***

The audit overview was provided to DED through a conference call on May 8, 2009. The auditor reviewed his career and noted that he had signed a confidentiality agreement. A brief explanation of the audit process was given and the timelines were discussed. DED was given an opportunity to reject the auditor but accepted the auditor and his credentials for this audit. DED introduced their team and made presentations that clarified how business was conducted and in what areas responsibilities were assigned.

## ***Audit***

The lead auditor performed the audit off-site. The auditor reviewed the materials provided and developed a list of questions to clarify the information or to ask for additional evidence. The list was emailed to DED. DED staff then took the time necessary to develop answers and submitted them by email to the auditor. The evidence provided was used to complete RSAWs for each standard.

## ***Exit Briefing***

The exit briefing was conducted by conference call on May 15, 2009 between the NPCC auditor and both the key staff members of DED and Utility Services, the consulting company utilized by DED. The auditor reviewed the audit process and summarized the findings of the audit. The results of the audit were that 6 standards were judged to be compliant and 5 were judged to be not applicable. DED was given an opportunity to question the audit findings and provide comment on the audit. DED said they thought the process was very professional and a beneficial process.

## ***Company Profile***

The Danvers Electric Division (DED) is a municipal electric utility that serves the Town of Danvers and is located in northeastern Massachusetts, also known as the North Shore; approximately 30 miles northeast of Boston. Town of Danvers is surrounded by Middleton to the West; Topsfield and Wenham to the North; Peabody to the South; and Beverly to the East. DED serves approximately 13,000 customers with a June 10th 2008 peak of 71.74 MW at 1700 and annual sales of approximately 321,000,000 kWh's. The utility resides entirely within the ISO-New England control area. Danvers Electric Division is part of the Town of Danvers government. The government is headed up by the Town Manager and a Select Board. There is a separate light commission, but they are advisory. The Electric Division Director reports to the

Director of Public Works for the Town of Danvers. The organization consists of 38 full-time employees.

DED is interconnected to the National Grid transmission system at the South Danvers (Bow Street) 42 Substation. The substation, which is fed by the B154N and C155N 115 kV transmission lines, has a three transformer (30/40/50 MVA rating) 115kV to 13.8kV substation configuration. Danvers also has five other synchronous 23 kV interconnections with Middleton and Peabody. Within the system, Danvers Electric Division utilizes operating voltages at 23 and 4.16 kV. Circuit miles for the 23 kV lines are 57 and there are 117.3 miles at 4.16 kV. DED owns 0 miles of 115 kV circuits.

DED is a market participant with ISO-New England, who is registered as the local Balancing Authority, Reliability Coordinator, Transmission Operator and has oversight on the local control center. National Grid is the Transmission Operator to whom DED is directly interconnected with.

DED does not own or operate any generation. DED is registered with NERC as both a Distribution Provider and a Load Serving Entity.

### **Audit Specifics**

The compliance audit was conducted from May 11 to May 15, 2009 at the auditor's offices. The NPCC and DED teams are shown below.

<b>Audit Team Role</b>	<b>Name</b>	<b>Title</b>	<b>Company</b>
Lead		Contracted Consultant	NPCC-Compliance Audit Program
Member		Manager Compliance Audit Program	NPCC-Compliance Audit Program

### **DED**

<b>Title</b>	<b>[Audited Entity] Organization</b>
Director of Engineering and Operations	Danvers Electric Division
System Engineer	Danvers Electric Division
Electrical Engineer	Danvers Electric Division
Distribution Engineer	Danvers Electric Division
Power Supply Engineer	Danvers Electric Division
Consultants	Utility Services LLC
Consultants	Utility Services LLC

## Audit Results

The off-site compliance audit of Danvers Electric Division (DED) was conducted between May 11 and May 15, 2009. The audit was completed using data submitted by Danvers Electric Division prior to the start of the off-site audit and data provided as a result of questions that arose during the audit.

The auditor evaluated DED's compliance with 11 reliability standards and 32 requirements/sub-requirements identified in the NERC 2009 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each reliability standard.

Of the 11 standards and 32 requirements and sub-requirements audited for the functions DED is registered, 6 standards and 11 requirements and sub-requirements were judged to be compliant; 5 standards and 21 requirements and sub-requirements were judged to be not applicable.

### *Findings*

The following table details findings for compliance with the reliability standards listed in the NERC 2009 Implementation Plan.

<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
<u>CIP-001-1</u>	R1.	Compliant
<u>CIP-001-1</u>	R2.	Compliant
<u>CIP-001-1</u>	R3.	Compliant
<u>CIP-001-1</u>	R4.	Compliant
<u>EOP-002-2</u>	R9.	N/A
<u>EOP-002-2</u>	R9.1.	N/A
<u>IRO-001-1</u>	R8.	Compliant
<u>IRO-004-1</u>	R4.	Compliant
<u>IRO-005-1</u>	R13.	N/A
<u>PRC-004-1</u>	R1.	N/A
<u>PRC-004-1</u>	R3.	N/A
<u>PRC-005-1</u>	R1.	N/A
<u>PRC-005-1</u>	R1.1.	N/A
<u>PRC-005-1</u>	R1.2.	N/A
<u>PRC-005-1</u>	R2.	N/A
<u>PRC-005-1</u>	R2.1.	N/A
<u>PRC-005-1</u>	R2.2.	N/A
<u>PRC-008-0</u>	R1.	Compliant
<u>PRC-008-0</u>	R2.	Compliant
<u>PRC-017-0</u>	R1.	N/A
<u>PRC-017-0</u>	R1.1.	N/A
<u>PRC-017-0</u>	R1.1.1.	N/A

<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
<u>PRC-017-0</u>	R1.1.2.	N/A
<u>PRC-017-0</u>	R1.1.3.	N/A
<u>PRC-017-0</u>	R1.1.4.	N/A
<u>PRC-017-0</u>	R1.2.	N/A
<u>PRC-017-0</u>	R1.3.	N/A
<u>PRC-017-0</u>	R1.4.	N/A
<u>PRC-017-0</u>	R1.5.	N/A
<u>TOP-001-1</u>	R4.	Compliant
<u>TOP-002-2</u>	R3.	Compliant
<u>TOP-002-2</u>	R18.	Compliant

### ***Compliance Culture***

The audit team reviewed DED's compliance culture. During all contact, DED staff was professional in their approach to compliance and understood the importance of the compliance and its role in maintaining reliability.