



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

**Bear Swamp Power Company, LLC  
NCR07015**

**April 7 to April 30, 2008**

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

April 30, 2008

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## Executive Summary

The offsite compliance audit of Bear Swamp Power Company, LLC (BSPC) was conducted between April 7 and April 30, 2008. The audit was completed using data submitted by BSPC and telephone and email data exchanges. The audit team evaluated BSPC compliance with nine reliability standards applicable to registered Generator Owners (GO) as identified in the NERC 2008 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each, reliability standard. Of the nine standards and seventeen requirements audited, seven requirements were judged to be compliant, six requirements were judged to be not applicable and four were judged to be not applicable for the audit period. BSPC provided subject matter experts for the standards resulting in a more clear understanding of the BSPC business model and accelerated the audit process. The evidence provided to demonstrate compliance was incomplete at submission but follow-up emails and conference calls provided the additional information required to determine compliance. The audit team would like to thank the BSPC audit preparation team for the support offered throughout the audit process.

## Audit Process

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:

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

The audit was completed using data submitted by BSPC and telephone and email data exchanges. The audit team evaluated BSPC compliance with nine reliability standards and seventeen requirements identified in the NERC 2008 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each reliability standard. Of the nine standards and seventeen requirements audited, seven requirements were judged to be compliant, six requirements were judged to be not applicable and four were judged to be not applicable for the audit period, based on the data submitted in response to the audit request and further data provided as a result of follow up questions.

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>2</sup> The audit objectives are:

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

<sup>2</sup> North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

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

### **Scope**

The audit included all standards identified in the January 14, 2008 audit letter for the previous year. The audit was a regularly scheduled audit and no self reported violations or compliance investigations were involved.

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

Confidentiality agreements executed by the independent contractors and code of conduct documentation for the NERC representative and regional entity staffs were provided to the audited entity in advance of the audit. Work history and conflict of interest forms submitted by each audit team member were provided to the audited entity. 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**

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

The audit team leader requested conference calls with the BSPC Analyst and subject matter experts regarding all of registered functions of BSPC. These conference calls in conjunction with documentation and email correspondence provided the audit team with a basis for professional judgment when validating compliance with reliability standards.

### **Methodology**

The audit team prepared reliability standards auditor worksheets (RSAWs) to evaluate each standard. The RSAW's 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 portion of the audit trail are included in the RSAW's.

### ***Audit Overview***

The audit overview was conducted on April 11, 2008 via conference call. 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. BSPC was given the opportunity to reject the auditor should they feel that there was a possible conflict of interest or they thought the auditor would not be impartial. BSPC accepted the auditor.

### ***Audit***

The audit was performed off site by Anthony M. Giasi. Prior to calls to BSPC the auditor developed and provided a list of questions for BSPC and then asked the questions. BSPC then took the time necessary to develop the answer and submitted them by email to the auditor.

### ***Exit Briefing***

The exit briefing was conducted by conference call on April 30, 2008. On the call was Anthony M. Giasi of NPCC and David Preble and Jeffrey Smith of BSPC. NPCC staff reviewed the audit process and summarized the findings of the audit. Of the nine standards and seventeen requirements audited, seven requirements were judged to be compliant, six requirements were judged to be not applicable and four were judged to be not applicable for the audit period. BSPC was given an opportunity to question the audit findings and provide comment on the audit. BSPC said they found the process to be a very informative and valuable experience.

### ***Company Profile***

The assets located at the J. Cockwell pumped storage facility (ISO nos. 359 and 360) are owned and operated by the Bear Swamp Power Company, LLC (BSPC). The membership interests in BSPC are held fifty percent by Bear Swamp Holding Company, LLC, a subsidiary of Brookfield Asset Management, and fifty percent by Emera Energy U.S. Subsidiary No. 1, a subsidiary of Emera Inc. BSPC has contracted with an affiliate, Brookfield Power New England (BPNE), to provide operation and maintenance services for the project.

BPNE operates hydro electric assets located in the New England Region of the U.S. The asset base managed by BPNE is currently comprised of 20 generating stations containing 68 hydro units with a total installed capacity of 841 MW located on five river systems in the states of Maine, New Hampshire and Massachusetts. BPNE is a subsidiary of Brookfield Power Corporation (BPC).

BPC is a Canadian company that owns hydro, wind, and thermal generating assets located primarily in Canada, the U.S., and Brazil. BPC owns a total of 161 generating station containing 524 generating units with an installed capacity of 3917 MW and a total annual generation of approximately 13,000 GWH.

### **Audit Specifics**

The compliance audit was conducted from April 7 to April 30, 2008 at the NPCC offices in New York, New York.

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

### **BSPC Audit Participants**

<b>Title</b>	<b>Company</b>
General Mgr., BPNE System Control	BSPC
General Mgr., BPNE Southern Region	BSPC
Project Engineer	BSPC
Manager., Pumped storage operation	BSPC
Electrical Engineer Electrical Engineer	BSPC

## **Audit Results**

BSPC provided four flash drives containing data used to demonstrate their compliance with the standards identified in the audit letter from NPCC. When the auditor had additional questions conference calls and emails were used to request additional documentation.

After reviewing all the data, of the nine standards and seventeen requirements audited, seven requirements were judged to be compliant, six requirements were judged to be not applicable and four were judged to be not applicable for the audit period.

### **Findings**

The following table details the summarized auditor notes relating to evidence reviewed for compliance with the reliability standards listed in the NERC 2008 Implementation Plan. This

table can also include details summarizing auditor notes relating to evidence reviewed for reliability standard requirements for self-reported violations, ongoing mitigation plans, and other discussions.

The Reliability Standards and Requirements identified in the table below are applicable to the GO - Generator Owner function.

<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
EOP-009-0	R2	Not Applicable
FAC-008-1	R1	Compliant
	R2	Not Applicable for this audit period.
FAC-009-1	R1	Compliant
	R2	Compliant
IRO-004-1	R4	Compliant
PRC-004-1	R2	Compliant
	R3	Compliant
PRC-005-1	R1	Compliant
	R2	Not Applicable for this audit period.
PRC-016-0	R1	Not Applicable
	R2	Not Applicable
	R3	Not Applicable
PRC-017-0	R1	Not Applicable
	R2	Not Applicable
VAR-002-1	R4	Not Applicable for the audit period.
	R5	Not Applicable for the audit period.

### **Compliance Culture**

The audit team reviewed the BSPC compliance culture. The regional entity compliance staff may review additional aspects of the BSPC compliance culture. During all contacts, BSPC staff was very professional and positive in their approach to compliance and understood the importance of the compliance and its role in maintaining reliability. All additional information submitted by BSPC was comprehensive and well organized.