



NORTHEAST POWER COORDINATING COUNCIL, INC.
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Operations and Planning Compliance Audit Report Public Version

New Brunswick Power Corporation
NBCR001 [NERC NCR07155]

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

Date of Audit: March 25, 2015 to September 22, 2015

Audit Period: October 1, 2013 to May 13, 2015

Date of Report: September 22, 2015

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Executive Summary

The Northeast Power Coordinating Council (NPCC) is a recognized compliance body in New Brunswick and assists the New Brunswick Energy and Utilities Board (EUB) with compliance monitoring functions in the Province.

NPCC conducted an off-site Operations and Planning Audit of New Brunswick Power Corporation (NB Power), from the Initial Audit Briefing conducted on March 25, 2015 to the Audit Exit Briefing conducted on September 22, 2015. The audit was previously identified in the 2015 Annual Audit Plan – Appendix 1 to the New Brunswick 2015 Annual Implementation Plan (AIP). The functions being audited were that of Generator Owner (GO) and Generator Operator (GOP).

The Audit team evaluated NB Power for compliance with 105 requirements from the 2015 NB AIP and also included a review of one Mitigation Plan for an Open Enforcement Action on PRC-005 R1. The team assessed compliance with the NBEUB approved NERC Reliability Standards, for the period October 1, 2013 to May 13, 2015, the documentation submittal date. NB Power submitted evidence for the team's evaluation of compliance with the requirements. The team reviewed and evaluated all evidence provided to assess compliance with the reliability standards applicable to NB Power at this time. Based on the evidence provided, the team's findings are summarized in Table 1 below:

Table 1. Summary of Findings

	No Finding	Possible Violation	Open Enforcement Action*	Not Applicable	Total
Reliability Standard Requirements	57	2	1	45	105

*OEA's with newly identified PVs are counted in the PV column only; not in the OEA column. OEA's without newly identified PVs are counted in the OEA column.

The team notified NB Power of Zero (0) Areas of Concern and Four (4) Recommendations.

The findings included in this report are the same as the findings presented to NB Power during the Exit Briefing. The findings are further explained in the Audit Findings section and the Findings table of the report. The Findings table includes information of the team's findings of applicability and compliance to the NBEUB approved NERC Reliability Standards within the scope of the Audit. Possible Violations will be processed in accordance with the NB Reliability Standards Regulation-Electricity Act (Reliability Standards Regulation).

The NPCC Audit team lead certifies that the team adhered to all requirements of the Reliability Standards Regulation, NERC Rules of Procedure (ROP) and NERC Compliance Monitoring and Enforcement Program (CMEP), as applicable.

Audit Process

The compliance Audit process steps are detailed in the Reliability Standards Regulation which is based on the NERC ROP and CMEP and generally conforms to the Government Auditing Standards and other generally accepted audit practices.

Objectives

All registered entities are subject to compliance assessments with all reliability standards applicable to the functions for which the registered entity is registered as per the Reliability Standards Regulation. The Audit objectives are to:

- Review compliance with the requirements of reliability standards that are applicable to NB Power, based on the functions that NB Power is registered to perform;
- Validate compliance with applicable reliability standards from the 2015 NB Annual Implementation Plan list of actively monitored standards and additional NBEUB approved NERC Reliability Standards selected by NPCC and the EUB;
- Validate evidence of self-reported violations and previous self-certifications;
- Observe and document NB Power's compliance program and culture;
- Review the status of open mitigation plans.

Scope

The scope of the compliance Audit included the NBEUB approved NERC Reliability Standards from the 2015 NB Annual Implementation Plan. The team did not expand the scope beyond what was stated in the notification package.

Confidentiality and Conflict of Interest

Confidentiality and conflict of interest of the Audit team are governed under the Reliability Standards Regulation, the EUB-NPCC Service Contract, the NPCC Delegation Agreement with NERC and Section 1500 of the NERC Rules of Procedure. NB Power was informed of NPCC's obligations and responsibilities relating to confidentiality and conflict of interest under these governing documents. The work history for each team member was provided to NB Power, which was given an opportunity to object to a team member's participation on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with a team member's impartial performance of duties. NB Power had not submitted any objections by the stated 15-day objection due date and accepted the team member participants without objection. There were no denials or access limitations placed upon this team by NB Power.

Methodology

The Audit team reviewed the evidence submitted by NB Power and assessed compliance with requirements of the applicable reliability standards. NPCC provided NB Power with a Request for Information (RFI) prior to commencement of the Audit. NB Power provided pre-Audit evidence at the time requested, or as agreed upon, by NPCC. Additional evidence could be submitted until the agreed-upon deadline prior to the Exit Briefing. After that date, only data or

information that was relevant to the content of the report or its findings could be submitted with the agreement of the Audit team lead.

The Audit team reviewed documentation provided by NB Power and requested additional evidence and sought clarification from subject matter experts during the Audit. Evidence submitted in the form of policies, procedures, emails, logs, studies, data sheets, etc. were validated, substantiated, and cross-checked for accuracy as appropriate. Where sampling was applicable to a requirement, the sample set was determined by a statistical methodology, along with professional judgment.

Findings were based on the facts and documentation reviewed as well as the team's knowledge of the Bulk Electric System (BES), the NERC Reliability Standards, and professional judgment. All findings were developed based upon the consensus of the team.

Company Profile

On June 21, 2013, the Legislative Assembly of New Brunswick passed a new Electricity Act, SNB 2013, c.7 (the "Act"), which substantially altered the structure of the electricity sector in New Brunswick. The Act has been proclaimed in force as of October 1, 2013.

In accordance with the Act, all of the NB Power companies existing prior to October 1, 2013 together with the New Brunswick System Operator ("NBSO") and New Brunswick Electric Finance Corporation have been amalgamated to form the vertically integrated New Brunswick Power Corporation (NBPC).

NBPC is a Crown corporation with a board of directors responsible for the administration of the business and affairs of the corporation as described in the NB Electricity Act.

NBPC is comprised of the following divisions:

- 1) Corporate Services
- 2) Distribution and Customer Service
- 3) Generation
- 4) Nuclear
- 5) Transmission & System Operator

In addition, New Brunswick Energy Marketing Corporation ("Energy Marketing") is now a wholly owned subsidiary of NB Power, and will continue in the wholesale merchant function it has performed since 2004. Energy Marketing maintains the licenses and permits necessary to allow Energy Marketing to carry out its mandate to import and export energy and certain contracts related to that mandate.

The Nuclear division of NB Power Corporation is responsible for the design, construction, planning, operation and maintenance of the sole nuclear facility within New Brunswick at Point Lepreau.

The Generation division of NB Power Corporation is responsible for the design, construction, planning, operation and maintenance of the conventional NB Power Owned facilities within New Brunswick.

Following is the installed generating capacity in New Brunswick:

Generating Capacity	MW
Oil	1,501
Coal	467
Natural Gas	353
Biomass	39
Hydro	908
Nuclear	660
Wind	294
Total	4,222

Audit Participants

The following is a list of all personnel from the NPCC Audit team and NB Power who were directly involved during the meetings and interviews.

NPCC Team

Role	Title	Entity
Audit Team Lead	Lead Auditor	NPCC
Audit Manager	Manager, Compliance Monitoring	NPCC
Team Member	Auditor	NPCC

NB Power Participants

Title	Entity
Director of Corporate Compliance	NB Power
P. Eng. Senior Specialist – Performance and Chemistry	NB Power Conventional Generation Division
P. Eng. Technical Advisor	NB Power Pt Lepreau Nuclear Generating Station
P. Eng. Senior Engineer, Corporate Compliance	NB Power

Observers

Role	Title	Entity
Regulatory Observer	Director-Reliability Standards, Compliance and Enforcement	NBEUB
Regulatory Observer	Compliance and Enforcement Coordinator	NBEUB
Regulatory Observer	Reliability Standard Coordinator	NBEUB

Audit Findings

The following information details the compliance findings for the reliability standards and requirements identified in the scope of this Audit.

Standard	Req.	Finding
BAL-005-2b	R1	No Finding
COM-002-2	R1	No Finding
EOP-004-2	R1	No Finding
EOP-004-2	R2	No Finding
EOP-004-2	R3	Possible Violation
EOP-005-2	R13	No Finding
EOP-005-2	R14	No Finding
EOP-005-2	R15	No Finding
EOP-005-2	R16	No Finding
EOP-005-2	R17	No Finding
EOP-005-2	R18	No Finding
FAC-001-1	R2	Not Applicable
FAC-001-1	R3	Not Applicable
FAC-002-1	R1	No Finding
FAC-003-3	R1	Not Applicable
FAC-003-3	R2	Not Applicable
FAC-003-3	R3	Not Applicable
FAC-003-3	R4	Not Applicable
FAC-003-3	R5	Not Applicable
FAC-003-3	R6	Not Applicable

FAC-003-3	R7	Not Applicable
FAC-008-3	R1	No Finding
FAC-008-3	R2	Not Applicable
FAC-008-3	R6	No Finding
FAC-008-3	R7	No Finding
FAC-008-3	R8	Not Applicable
IRO-001-1.1	R8	No Finding
IRO-005-3.1a	R10	No Finding
IRO-010-1a	R3	No Finding
MOD-010-0	R1	No Finding
MOD-010-0	R2	Not Applicable
MOD-012-0	R1	No Finding
MOD-012-0	R2	Not Applicable
MOD-026-1	R3	Not Applicable
MOD-026-1	R4	Not Applicable
MOD-026-1	R5	Not Applicable
MOD-027-1	R3	Not Applicable
MOD-027-1	R4	Not Applicable
NUC-001-2	R1	No Finding
NUC-001-2	R2	No Finding
NUC-001-2	R3	Not Applicable
NUC-001-2	R4	Not Applicable
NUC-001-2	R5	No Finding
NUC-001-2	R6	No Finding
NUC-001-2	R7	No Finding
NUC-001-2	R8	Not Applicable
NUC-001-2	R9	No Finding
PRC-001-1	R1	No Finding
PRC-001-1	R2	No Finding
PRC-001-1	R3	No Finding

PRC-001-1	R4	Not Applicable
PRC-001-1	R5.	No Finding
PRC-001-1	R6	Not Applicable
PRC-002-NPCC-01	R1	No Finding
PRC-002-NPCC-01	R4	No Finding
PRC-002-NPCC-01	R5	No Finding
PRC-002-NPCC-01	R6	No Finding
PRC-002-NPCC-01	R13	No Finding
PRC-002-NPCC-01	R14	No Finding
PRC-002-NPCC-01	R15	No Finding
PRC-002-NPCC-01	R16	No Finding
PRC-002-NPCC-01	R17	No Finding
PRC-004-2.1a	R2	No Finding
PRC-004-2.1a	R3	No Finding
PRC-005-1.1b	R1.	Open Enforcement Action
PRC-005-1.1b	R2.	Possible Violation
PRC-015-0	R1	Not Applicable
PRC-015-0	R2	Not Applicable
PRC-015-0	R3	Not Applicable
PRC-016-0.1	R1	Not Applicable
PRC-016-0.1	R2	Not Applicable
PRC-016-0.1	R3	Not Applicable
PRC-017-0	R1.	Not Applicable
PRC-017-0	R2.	Not Applicable
PRC-018-1	R1	No Finding
PRC-018-1	R2	No Finding
PRC-018-1	R3	No Finding
PRC-018-1	R4	No Finding
PRC-018-1	R5	Not Applicable
PRC-018-1	R6	No Finding

PRC-019-1	R1	Not Applicable
PRC-019-1	R2	Not Applicable
PRC-023-2	R1.	Not Applicable
PRC-023-2	R2	Not Applicable
PRC-023-2	R3	Not Applicable
PRC-023-2	R4	Not Applicable
PRC-023-2	R5	Not Applicable
TOP-001-1a	R3	No Finding
TOP-001-1a	R6	No Finding
TOP-001-1a	R7	No Finding
TOP-002-2.1b	R3	No Finding
TOP-002-2.1b	R13	No Finding
TOP-002-2.1b	R14	No Finding
TOP-002-2.1b	R15	No Finding
TOP-002-2.1b	R18	No Finding
TOP-003-1	R1	No Finding
TOP-003-1	R2	No Finding
TOP-003-1	R3	No Finding
TOP-006-2	R1	No Finding
VAR-002-3	R1	Not Applicable
VAR-002-3	R2	Not Applicable
VAR-002-3	R3	Not Applicable
VAR-002-3	R4	Not Applicable
VAR-002-3	R5	Not Applicable
VAR-002-3	R6	Not Applicable

Areas of Concern and Recommendations

The Audit team identified and informed NB Power of Zero (0) Areas of Concern and Four (4) Recommendations.

Compliance Culture

The NPCC Audit team performed an assessment of NB Power's compliance culture in conjunction with the Audit process. The assessment was accomplished through a review of the Reliability Standards Compliance Program Manual, response to the Pre-Audit Internal Compliance Survey questionnaire and in the Audit team's assessment of the quality of the evidence submitted and NB Power's response to follow-up requests for information. Given the restructuring that has taken place at NB Power over the past several years, it is the opinion of the Audit team that NB Power is developing an effective compliance program. Continued review and revision of procedures to be consistent across all applicable assets and on-going self-monitoring to detect problems and correct them as soon as possible will further aid in establishing an effective compliance program. The NB Power audit team was professional and cooperative throughout the audit process. The audit submission and follow-up requests for information were submitted in a timely manner. During future compliance engagements NB Power should review the exchange of information that occurred during this audit to gain a better understanding of the type of evidence required to effectively support compliance.