



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant New Brunswick Power Nuclear

Subject Application to Amend the Power Reactor
Operating Licence for the Point Lepreau Nuclear
Generating Station to Reflect Administrative
Changes

Hearing
Date November 26, 2009

RECORD OF PROCEEDINGS

Applicant: New Brunswick Power Nuclear

Address/Location: Point Lepreau Generating Station, P.O. Box 600,
Lepreau, NB E5J 2S6

Purpose: Application to Amend the Power Reactor Operating Licence for
the Point Lepreau Nuclear Generating Station to reflect
administrative changes

Application received: July 22, 2009

Date of hearing: November 26, 2009

Location: Canadian Nuclear Safety Commission (CNSC) 280 Slater St.,
Ottawa, Ontario

Members present: M. Binder, Chair

Secretary: K. McGee
Recording Secretary: M. Young

Licence: Amended

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Introduction

1. New Brunswick Power Nuclear (NBPN) has applied to the Canadian Nuclear Safety Commission¹ (CNSC) for an amendment to the Power Reactor Operating Licence (PROL) for its Point Lepreau Nuclear Generating Station (PLNGS) located on the Lepreau Peninsula in New Brunswick. The current licence, 17.10/2011, expires on June 30, 2011.
2. NBPN requested the licence amendment in order to make the following administrative changes:
 - update NBPN document “Physical Accounting of Fuel” to Revision 7 in Appendix B, Licence Condition 1.8;
 - add CNSC regulatory document RD-363, “*Nuclear Security Officer Medical, Physical, and Psychological Fitness*,” to Appendix C, and a related licence condition, Licence Condition 10.4;
 - make typographic corrections to Licence Condition 2.2 and to Appendix B, Licence Condition 3.2;
 - update the Radiation Devices listed in Appendix H;
 - update to items 8 and 20 of Appendix J;
 - update NBPN document “Operating Policies and Principles” (OP&P) to Revision 17 in Appendix B, Licence Conditions 2.1, 2.2 and 3.1;
 - revise wording regarding the completion date for the Reactor Building Leak Rate Test in Licence condition 3.7; and
 - update Licence Condition 5.2(c) to the 2009 version of the referenced Canadian Standards Association (CSA) Standard N285.4, “Periodic Inspection of CANDU Nuclear Power Plant Components.”

Issue

3. In considering the application, the Commission was required to decide, pursuant to subsection 24(4) of the *Nuclear Safety and Control Act*² (NSCA):
 - a) if NBPN is qualified to carry on the activity that the amended licences would authorize; and
 - b) if in carrying on that activity, NBPN would make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

¹ The *Canadian Nuclear Safety Commission* is referred to as the “CNSC” when referring to the organization and its staff in general, and as the “Commission” when referring to the tribunal component.

² Statutes of Canada (S.C.) 1997, chapter (c.) 9.

Hearing

4. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission to review the application. The Commission, in making its decision, considered information presented for a hearing held on November 26, 2009 in Ottawa, Ontario. During the hearing, the Commission considered written submissions from CNSC staff (CMD 09-H130) and NBPN (CMD 09-H130.1).

Decision

5. Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*, the Commission concludes that NBPN has met the conditions of subsection 24(4) of the NSCA. Therefore,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, amends the Power Reactor Operating Licence PROL 17.10/2011 issued to New Brunswick Power Nuclear for its Point Lepreau Nuclear Generating Station located on the Lepreau Peninsula in New Brunswick. The amended licence, PROL 17.11/2011, remains valid until June 30, 2011.

6. The Commission includes in the licence the conditions as recommended by CNSC staff in CMD 09-H130.

Issues and Commission Findings

Qualifications and Protection Measures

7. NBPN provided information regarding the proposed licence amendment. NBPN provided details concerning each proposed change and explained that the changes were administrative in nature. CNSC staff provided an assessment of each proposed change.
8. Regarding the change to Appendix B, Licence Condition 1.8, to incorporate Revision 7 of the document entitled "*Physical Accounting of Fuel*", which describes the fuel accounting system, key physical measuring points and persons responsible, CNSC staff stated that the changes to Revision 7 are largely administrative in nature and include updates to the document format and the inclusion of proper form identifiers. CNSC staff noted that Revision 7 also reflects that the Point Lepreau NGS is now under Integrated Safeguards, which means that the International Atomic Energy Agency (IAEA) will verify nuclear inventory randomly in selected years, rather than annually. CNSC staff recommended that the Commission approve this change.

9. NBPN requested to incorporate the regulatory requirements of RD-363, “*Nuclear Security Officer Medical, Physical and Psychological Fitness*” into the licence. CNSC staff noted that RD-363 applies to the Point Lepreau site and similar amendments have been received and approved for other power reactor licensees. CNSC staff recommended that a licence condition requiring compliance with RD-363 be added to the licence, along with the reference to the regulatory document in Appendix C. The reference to RD-363 in the licence will make it enforceable.
10. CNSC staff recommended that the following corrections be made to two typographical errors in the licence:
 - the numerical reference in Appendix B, Condition 3.2; and
 - the title given to section 0.05 of the OP&P in Licence Condition 2.2.
11. Regarding the radiation devices listed in Appendix H, NBPN explained that six devices no longer require a licence per the *Nuclear Substances and Radiation Devices Regulations*³ because their activities (radioactive decay rates) are less than ten times the Exemption Quantity. NBPN stated that three new devices will be added to the list in Appendix H, including devices used for alarm response checks in the Gaseous Effluent Monitor and to measure the lead content in paint. CNSC staff recommended that the six specified radiation devices be removed from Appendix H. CNSC staff also recommended that the three new devices be added to Appendix H.
12. NBPN requested the following two changes to the refurbishment work outlined in Appendix J of the licence:
 - stabilizing and plugging 30 tubes susceptible to flow induced vibration to restore the full cooling flow capacity and meet design requirements, rather than installing additional sealing strips and rods to the moderator; and
 - amending the licence to reflect that the heat transport storage tank liner will be removed rather than replaced.
13. Regarding the change to stabilize and plug the 30 tubes to increase cooling flow and meet design requirements, NBPN explained that it is a necessary change because the equipment manufacturer for the previous option, the installation of additional sealing strips and rods to the moderator, is no longer in the nuclear industry. CNSC staff concurred with NBPN’s proposal.
14. Regarding the heat transport storage tank liner, CNSC staff explained that although the licence currently requires the replacement of the heat transport storage tank liner, industry operating experience confirms that the tank does not require an epoxy liner to meet service conditions. CNSC staff recommended that the clause be amended to reflect that the liner will be removed.

³ Statutory Orders and Regulations (S.O.R.)/2000-207.

15. NBPN stated that the revision of the OP&P to Revision 17 accommodates the transition from Emergency Operating Procedures to Severe Accident Management (SAM) by adding text regarding the authority of the shift supervisor. CNSC staff stated that it supports NBPN's request. CNSC staff stated that a SAM program outlines measures to prevent the escalation of an accident, to mitigate the consequences of an accident involving severe damage to the reactor core and to achieve a long term safe and stable reactor and plant.
16. NBPN requested that the December 31, 2009 deadline for the Reactor Building Leak Rate Test be postponed as the reactor building will not be in the appropriate state by that date. CNSC staff concurred with NBPN's request and recommended that the test date deadline be revised to be the "end of the refurbishment outage and prior to the removal of the Guaranteed Shutdown State."
17. Regarding Licence Condition 5.2(c), CNSC staff stated that the current facility licence references the 2005 CSA Standard N285.4 – *Periodic Inspection of CANDU Nuclear Power Plant Components*, related to the inspection and performance of material surveillance for Pressure Boundary items. NBPN requested that the licence reference the 2009 version of this CSA Standard with a transition to full compliance by April 30, 2010. CNSC staff concurred with NBPN's request.
18. CNSC staff stated that the proposed changes are largely administrative in nature and will have no negative impact on the health and safety of workers, the public or the environment. CNSC staff noted that the incorporation of updates to more recent standards and regulatory guides should, in those circumstances, improve safety.

Application of the *Canadian Environmental Assessment Act*

19. Before making a licensing decision, the Commission must be satisfied that all applicable requirements of the *Canadian Environmental Assessment Act*⁴ (CEAA) have been fulfilled.
20. CNSC staff reported that it had completed an Environmental Assessment (EA) determination. CNSC staff stated that there was no requirement for an EA pursuant to subsection 5(1) of the CEAA.
21. The Commission is satisfied that all applicable requirements of the CEAA have been fulfilled.



Michael Binder
President,
Canadian Nuclear Safety Commission

NOV 26 2009

Date

⁴ S.C. 1992, c. 37.