



UNPROTECTED/NON PROTÉGÉ

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CMD: 20-H103

Date signed/Signé le : MARCH 31 2020

**New Brunswick Power
Corporation**

**Request Approval of a
one-time exemption from
section 30.0 of RD-204,
*Certification of Persons
working at Nuclear Power
Plants***

**Point Lepreau Nuclear
Generating Station**

Hearing in writing based solely on written
submissions

Scheduled for:

March 2020

Submitted by:

CNSC Staff

**Société d'énergie du
Nouveau-Brunswick**

**Demande d'approbation
pour une exemption
unique de la section 30.0
du document RD-204,
*Accréditation des
personnes qui travaillent
dans des centrales
nucléaires***

**Centrale nucléaire de
Point Lepreau**

Audience fondée uniquement sur des
mémoires

Prévue en :

Mars 2020

Soumise par :

Le personnel de la CCSN

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Summary

This CMD pertains to a request for a decision regarding:

- A one-time exemption from section 30.0 of RD-204, *Certification of Persons Working at Nuclear Power Plants*, to allow a candidate from New Brunswick Power (NB Power) a three-year extension to the validity period of certification examinations. This request aligns with the provisions of section 30.0 of REGDOC-2.2.3, *Personnel Certification, Volume III, Certification of Persons working at Nuclear Power Plants*. RD-204 currently forms part of the licensing basis for the Point Lepreau Nuclear Generating Station's (PLNGS) Power Reactor Operating Licence (PROL) under licence condition 2.4; however, if granted by the Commission, this will be replaced by REGDOC-2.2.3, Volume III provided Commission approval of CMD 20-H100.

The following actions are requested of the Commission:

- To grant a one-time exemption of the requirement of section 30.0 of RD-204, in order to allow one person, as identified in NB Power's submission, a three-year extension to the validity period of certification examinations, such as will be allowed by REGDOC-2.2.3, Volume III once it becomes a licence condition in the PROL, if granted by the Commission..

Résumé

Le présent CMD concerne une demande de décision au sujet de ce qui suit :

- Une exemption unique de la section 30.0 du document RD-204, *Accréditation des personnes qui travaillent dans des centrales nucléaires*, afin de permettre à une personne du Société d'énergie du Nouveau-Brunswick à une extension de trois ans de la période de validité des examens d'accréditation. Cette demande s'aligne avec la section 30.0 du REGDOC-2.2.3, *Accréditation du personnel, tome III : Accréditation des personnes qui travaillent dans des centrales nucléaires*. Le document RD-204 fait partie du fondement d'autorisation du permis d'exploitation d'un réacteur de puissance (PERP) de la centrale de Point Lepreau en vertu de la condition de permis 2.4 par contre, si accordé par la commission, ce document sera remplacé par REGDOC-2.2.3, tome III à condition de l'approbation de la Commission du CMD 20-H100.

On demande à la Commission d'intervenir comme suit :

- Accorder une exemption unique des exigences de la section 30.0 du document RD-204 pour permettre à une personne, telle que décrite dans le mémoire de la Société d'énergie du Nouveau-Brunswick, une extension de trois ans de la période de validité des examens d'accréditation, tel qu'il sera permis par le document REGDOC-2.2.3, tome III, une fois inclus comme condition de permis au PERP, si accordé par la Commission.

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Signed/signé le

March 31, 2020



Gerry Frappier, P. Eng.

Director General

Directorate of Power Reactor Regulation

Directeur général de la

Direction de la réglementation des centrales nucléaires

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1 OVERVIEW.....	2
1.1 Background	2
1.2 Highlights.....	2
2 MATTERS FOR CONSIDERATION	2
2.1 Environmental Assessment.....	2
2.2 Regulatory and Technical Basis	3
2.3 Aboriginal Consultation.....	7
3 OVERALL CONCLUSIONS AND RECOMMENDATIONS.....	7
3.1 Overall Conclusions.....	7
3.2 Overall Recommendations	7
REFERENCES	8
GLOSSARY.....	9
A. BASIS FOR THE RECOMMENDATIONS(S).....	10
A.1 Regulatory Basis	10
A.2 Technical Basis	10

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EXECUTIVE SUMMARY

NB Power has requested a one-time exemption from section 30.0 of RD-204, *Certification of Persons Working at Nuclear Power Plants*. This section allows an extension to the validity period of certification examinations by a maximum of one-year when a candidate seeking certification cannot be certified within the validity period specified.

The one-time exemption is requested to allow a specific candidate, as identified in NB Power's submission, a three-year extension to the validity period due to specific circumstances. The requested extension aligns with the provisions of section 30.0 of the newly published REGDOC-2.2.3, *Personnel Certification, Volume III, Certification of Persons working at Nuclear Power Plants*. RD-204 currently forms part of the licensing basis of the PLNGS PROL under licence condition 2.4; however, if granted by the Commission, this will be replaced by REGDOC-2.2.3, Volume III provided Commission approval of Commission Member Document (CMD) 20-H100.

On January 20, 2020, NB Power submitted an application for certification of the candidate to the CNSC as a Control Room Operator (CRO). The candidate was previously granted by the CNSC a one-year extension to the validity period of the certification examinations required, as permitted through section 30.0 of RD-204. The requested one-time exemption to allow for a three-year extension to the validity period of the certification examinations is therefore required in order to certify the candidate who has successfully completed all certification requirements.

CNSC staff have evaluated the licensee's submission and recommends that the request be granted as CNSC staff are satisfied that the exemption will have no impact on the competency and qualification of the candidate as a certified CRO. CNSC staff conclude that there are no unreasonable risks to the environment, health and safety of persons, national security or impacts to international obligations from the proposed one-time exemption.

Referenced documents in this CMD are available to the public upon request.

1 OVERVIEW

1.1 Background

NB Power has requested a one-time exemption from section 30.0 of RD-204, *Certification of Persons Working at Nuclear Power Plants*. This section allows an extension to the validity period of certification examinations by a maximum of one-year when a candidate seeking certification as a CRO cannot be certified within the validity period specified. NB Power's request is that the candidate be exempted from the one-year extension to the validity period, as specified in section 30.0 of RD-204, and be extended to a three-year extension to the validity period, which aligns with the new period provided in section 30.0 of REGDOC-2.2.3, *Personnel Certification, Volume III, Certification of Persons working at Nuclear Power Plants*.

1.2 Highlights

The one-time exemption from section 30.0 of RD-204 is requested to allow a specific candidate, as identified in NB Power's submission [1] (this personal information is treated as protected), a three-year extension to the validity period of certification examinations as aligned with section 30.0 of the newly published REGDOC-2.2.3, Volume III, *Certification of Persons working at Nuclear Power Plants*, rather than the one-year extension allowed by section 30.0 of RD-204. REGDOC-2.2.3, Volume III replaces RD-204, and will form part of the PLNGS licensing basis provided Commission approval of CMD 20-H100.

NB Power submitted an application for certification of the candidate to the CNSC as a CRO on January 20, 2020. The candidate was previously granted a one-year extension for the certification examinations required, as per section 30.0 of RD-204, with expiration dates of August 26, 2019 and January 30, 2020 to the two examinations. NB Power is confident that the candidate has the knowledge and skills to safely perform the duties of a CRO despite the contravention with RD-204.

CNSC staff have evaluated the licensee's submission and determined that the request is acceptable as the special circumstances of the candidate, described in section 2.2, do not impact the competency of the candidate to perform the duties required.

2 MATTERS FOR CONSIDERATION

2.1 Environmental Assessment

CNSC staff have reviewed the application [1] under the *Nuclear Safety and Control Act* (NSCA) and have concluded that, given the administrative nature of the proposed request, there are no impacts to the environment.

2.2 Regulatory and Technical Basis

CNSC staff have reviewed the licensee's request [1] and determined that the one-time exemption from section 30.0 of RD-204 has no overall impact on the competency and qualification of the candidate and for that reason, CNSC staff recommends the approval of the exemption. The basis for the CNSC staff's assessment is detailed below.

Licence condition 2.4 of the PLNGS PROL 17.00/2022 states:

The licensee shall implement and maintain certification programs in accordance with CNSC regulatory document RD-204, *Certification of Persons Working at Nuclear Power Plants*.

Persons appointed to the following positions require certification:

- (i) Responsible Health Physicist;
- (ii) Shift Supervisor; and
- (iii) Control Room Operator.

Subpart F, Section 30.0, and 30.1 of RD-204, *Certification of Persons Working at Nuclear Power Plants* states:

Subpart F – Validity of Certification Examinations

30.0 Extending the Validity Period of Certification Examinations

30.1 Conditions for Extension

Where a person seeking certification for a given position cannot be certified within the validity period specified after successfully completing an applicable certification examination, that validity period may, on application to the CNSC by the licensee, be extended by a maximum of one year under one or more of the following conditions:

1. The person's training was delayed due to sickness, injury, pregnancy or other family-related responsibilities;
2. The person's training was delayed or extended due to exceptional circumstances that were outside of the person's control;
3. The person had to retake a certification examination;
4. The person had to complete additional training; and
5. The person had to perform the duties of the position under supervision for longer than the minimum time specified for the position.

The reasons supporting NB Power's request [1] are as follows:

1. RD-204 Subpart F – Section 30.1, items 1 and 4 apply for the candidate. Co-piloting was delayed due to sickness and also required to re-take the Simulator-based training component of the certification training program;
2. Extending the Validity Period of Certification Examinations, Section 30.1 of RD-204 to a three-year extension which aligns with the new REGDOC-2.2.3, Volume III Subpart F, Section 30.0, per Section 30.1, will not impact the overall certification objectives and competency requirements; and
3. This candidate has completed all requirements of the certification training program, program remediation since completion of Specifics program and is currently completing 480 hours of co-piloting.

It is to be noted that since the submission of NB Power's request, the candidate has successfully completed all certification requirements and NB Power has applied for the initial certification of the candidate on January 20, 2020 [2].

As part of the certification requirements to become a CRO, candidates must successfully complete a number of knowledge-based and performance-based certification examinations. Each examination has a defined validity period within which a person must be certified as follow:

Knowledge-based

- General certification examination: 4 years
- Station Specific certification examination: 2.5 years

Performance-based

- Simulator-based certification examination: 1 year

When a candidate seeking certification as a CRO cannot be certified within the validity period specified, that validity period may be extended by a maximum of one-year in accordance with section 30.0 of RD-204.

If certification cannot be achieved within the one-year extended examination validity period, section 31.0 of RD-204 requires that the candidate successfully completes another certification examination of the same type to demonstrate, prior to certification, that the candidate still has the knowledge and skills required to work competently in the position. However, NB Power is not considering the option of complying with this section of RD-204 by having the candidate repeat the General and Station Specific certification examinations as the significant resources required to administer these certification examinations is not deemed necessary for the candidate's circumstances, which are later described.

In the present case, the candidate was granted a one-year extension for both the General and Station Specific certification examinations as follow:

Examination	Conduct Date	Expiry	One-year extension
General	January 30, 2015	January 30, 2019	January 30, 2020
Station Specific	February 26, 2016	August 26, 2018	August 26, 2019

Since the one-year examination extensions are insufficient to allow the candidate to become certified as a CRO at PLNGS, NB Power is requesting a one-time exemption from section 30.0 of RD-204 to allow for a three-year extension to the validity period of certification examinations. The requested extension aligns with section 30.0 of REGDOC-2.2.3, Volume III. The three-year examination validity extensions would not impact the competency of the candidate to perform the duties required and would provide more than enough time for the candidate to complete the training program and apply for certification.

There are three main factors that contributed to the non-compliance with the examination validity extension requirements of section 30.0 of RD-204:

- 1) The candidate had to retake the eight-month simulator-based training program after failing the preparation examination leading up to the March 2017 simulator-based certification examination;
- 2) After failing to complete the simulator-based training in March 2017, the next available simulator-based training cohort was scheduled to start a year later in April 2018 [5]. Single-unit stations have a much lower influx of candidates going through certification programs and this can sometime lead to delays between successive training cohorts. As a result, the candidate incurred a 12-month training delay but went on to successfully complete the simulator-based training and certification examination in April 2019; and,
- 3) The candidate suffered a serious illness from April 29, 2019 to October 10, 2019 resulting in a 5.5 month additional training delay.

Collectively, the candidate's training was delayed by approximately 2.3 years including 1.5 years due to exceptional circumstances falling outside of the candidate's control. These delays are significant and they were all incurred after the candidate had completed the General and Station Specific certification examinations. Considering that on average a typical CRO in training (CROIT) at PLNGS receives certification 3.2 years after completing the General certification examination and 2.0 years after completing the Station Specific certification examination, the extent of training delays encountered by the candidate made it challenging to comply with the examination validity periods prescribed by RD-204.

During the full year leading up to the April 2018 CRO simulator-based training program, the candidate was assigned to the Shift Supervisor simulator training program as a CRO role player during simulator drills and evaluations [5]. This

assignment allowed the candidate to maintain general and station specific knowledge and further familiarize himself or herself with management expectations regarding CRO response to transient conditions.

In addition, the candidate attended all of the continuing training missed due to the 5.5-month medical leave of absence during the co-piloting phase. The continuing training ensures that all of the discrete elements of knowledge essential for position competency are refreshed, updated and evaluated on a recurrent basis. The continuing training is therefore another program element in place that prevents knowledge degradation as initial candidates progress towards certification.

A review of the candidate's file did not reveal any performance issues to date. NB Power and CNSC staff are confident that the candidate has the knowledge and skills to safely perform the duties of a CRO despite the contravention with RD-204.

Furthermore, a similar request for a one-time exemption from section 26.1 of RD-204 has been granted by the Commission to Ontario Power Generation Inc. in August 2019 (CMD 19-H109) [3, 4].

REGDOC-2.2.3, *Personnel Certification, Volume III, Certification of Persons working at Nuclear Power Plants*, was published in September 2019 and replaces RD-204. This regulatory document allows licensees to apply for a three-year examination validity extension for knowledge-based examinations but keeps the one-year examination validity extension limit for simulator-based certification examinations. The new REGDOC-2.2.3, Volume III allows Nuclear Power Plant (NPP) licensees more training flexibility towards special candidate circumstances while recognizing that the application of fundamental and station specific knowledge is required to successfully complete the simulator-based certification examination.

As REGDOC-2.2.3, Volume III is not yet referenced in the PLNGS PROL, CMD 20-H100 is currently being prepared by CNSC staff to include an amendment to Licence Condition 2.4 of the PLNGS PROL to replace RD-204 with REGDOC-2.2.3, Volume III. This CMD also includes the same amendment to the respective Licence Conditions of the Bruce, Pickering and Darlington Nuclear Power Generating Stations PROLs. Although REGDOC-2.2.3, Volume III is not yet referenced in the PLNGS PROL, the current request by NB Power aligns with the direction that the CNSC is taking with the three-year knowledge-based examination validity extensions.

CNSC staff concur with NB Power's assessment that this candidate has the knowledge and skills to safely perform the duties of a CRO despite the contravention with RD-204.

2.3 Aboriginal Consultation

The common law duty to consult with Indigenous peoples applies when the Crown contemplates actions that may adversely affect established or potential Indigenous and/or treaty rights. Based on the information provided in the application, CNSC staff have determined that a change to the validity period for certification is administrative in nature and the decision will not cause an adverse impact on potential or established Indigenous and/or treaty rights. Therefore, the duty to consult has not been raised.

3 OVERALL CONCLUSIONS AND RECOMMENDATIONS

3.1 Overall Conclusions

With respect to paragraphs 24(4)(a) and (b) of the *Nuclear Safety and Control Act* (NSCA), CNSC staff have concluded that the licensee:

- Is qualified to carry on the activities authorized by the licence; and
- Will, in carrying out that activity, 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.

3.2 Overall Recommendations

CNSC staff recommend the following:

- The Commission grant a one-time exemption from section 30.0 of RD-204, *Certification of Persons Working at Nuclear Power Plants*, to allow a three-year extension to the validity period for the knowledge-based certification examinations that the candidate has successfully completed at PLNGS.

REFERENCES

1. NB Power letter, B. Plummer to M. A. Leblanc, “Request to Extend the Validity Period of Certification Examinations for [candidate] at Point Lepreau Nuclear Generating Station (PLNGS)”, January 7, 2020, e-Doc 6106729.
2. NB Power letter, B. Plummer to J. Burta, “Certification of [candidate] as Control Room Operator at the Point Lepreau Nuclear Generating Station”, January 20, 2020, e-Doc 6113987.
3. CMD 19-H109 – Submission from CNSC Staff on OPG’s request to Authorize a One-Time Exemption to Section 26.1 of RD-204, Certification of Persons Working at Nuclear Power Plants, e-Doc 5892160
4. Record of Decision DEC 19-H109 – OPG Request for a One-Time Exemption, e-Doc 5967788
5. Email correspondence, M. Cormier to F. Newbury “Request for information – RD-204 deviation request”, January 28, 2020, e-Doc 6110719.

GLOSSARY

CMD	Commission Member Document
CNSC	Canadian Nuclear Safety Commission
CRO	Control Room Operator
CROIT	Control Room Operator in training
NB Power	New Brunswick Power
NPP	Nuclear Power Plant
NSCA	<i>Nuclear Safety and Control Act</i>
PLNGS	Point Lepreau Nuclear Generating Station
PROL	Power Reactor Operating Licence

A. BASIS FOR THE RECOMMENDATIONS(S)

A.1 Regulatory Basis

The regulatory basis for the recommendations presented in this CMD is as follows:

- *Nuclear Safety and Control Act*, section 7 and subsection 24 (4).
- *General Nuclear Safety and Control Regulations*, section 11; and
- Nuclear Power Reactor Operating Licence, Point Lepreau Nuclear Generating Station, PROL 17.00/2022.

A.2 Technical Basis

The technical basis for the recommendations presented in this CMD are as follows:

- REGDOC-2.2.3, *Personnel Certification, Volume III: Certification of Persons Working at Nuclear Power*
- RD-204, *Certification of Persons Working at Nuclear Power Plants*