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Response to Commission Request
for Information

Réponse à une demande
d'information de la Commission

**Ontario Power Generation
Inc.**

**Ontario Power Generation
Inc.**

**Pickering Waste
Management Facility**

**Installation de gestion des
déchets de Pickering**

Public Hearing in Writing

Audience publique par écrit

Submitted by:
CNSC Staff

Soumise par :
Le personnel de la CCSN

Signed/signé le

15-07-2024

Luc Sigouin

Director General

Directorate of Nuclear Cycle and Facilities Regulation

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Table of Contents

BACKGROUND..... 1

STAFF RESPONSE.....2

CONCLUSION.....4

REFERENCES.....4

Background

A panel of the Commission has been established to consider Ontario Power Generation's (OPG) application to amend the licensing basis for the Pickering Waste Management Facility (PWMF) to authorize OPG to process and store, at the PWMF, up to 100 dry storage containers (DSC) containing 6-year cooled fuel. In this Commission Member Document (CMD), Canadian Nuclear Safety Commission (CNSC) staff are providing written responses to questions from the Commission directed to CNSC staff (provided in CMD 24-H102-Q [1]). CNSC staff's current submission does not provide responses to the questions in CMD 24-H102-Q [1] that were directed to the applicant, OPG; nor does it address the interventions beyond the questions raised by the panel of the Commission.

In conducting this hearing, the panel of the Commission has considered the written submissions (CMDs) provided by:

- CNSC staff
 - [CMD24-H102 – Submission from CNSC Staff – OPG's PWMF Licensing Basis Amendment](#)
- OPG
 - [CMD24-H102.1 – Submission from OPG – Application to Change the Licensing Basis for the Pickering Waste Management Facility](#)
 - [CMD24-H102.1A – Submission from OPG – Application to Change the Licensing Basis for the Pickering Waste Management Facility](#)
- 5 Intervenors
 - [CMD24-H102.2 – Submission from CANDU Owners Group Inc.](#)
 - [CMD24-H102.3 – Submission from Christine Drimmie](#)
 - [CMD24-H102.4 – Submission from Northwatch](#)
 - [CMD24-H102.5 – Submission from Mississaugas of Scugog Island First Nation](#)
 - [CMD24-H102.6 – Submission from Hiawatha First Nation](#)

Staff Response

The Commission's questions, including any quoted text from the original CMD, have been reproduced below in the shaded boxes to provide suitable context for CNSC staff's responses.

#1	What are the specific backout parameters which would trigger reversing loading of the test DSCs?
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As stated in CMD 24-H102.1A (pages 34- 36 of 105) [2] and CMD24-H102 (page 29 of 1230) [3], the specific backout parameters which would trigger reversing loading of the test DSC are two critical temperature thresholds pertaining to DSC processing.

- 1) To conduct post-weld inspection of the Lid-to-Base weld, the DSC flange must be below 50°C. If the temperature of the DSC flange is above 50°C, the licensee will need to extend the post weld cooling period prior to conducting a post-weld inspection.
- 2) To maintain the integrity of the International Atomic Energy Agency (IAEA) seals, the interior temperature of the IAEA seal tubes must be below 70°C. Should the existing seal tubes be unsuitable for use on DSCs containing 6-year cooled fuel, the CNSC will coordinate with the IAEA and OPG to explore alternative safeguards measures.

If either of these temperatures cannot be met during DSC processing, and if no suitable mitigating actions are implemented by OPG for the two critical temperature thresholds, then the test DSC would need to be reverse loaded. Should OPG find through their testing that any other processing steps cannot be successfully completed (e.g., lid to base welding, weld inspections) then test DSCs would also be reverse loaded.

#2	What are the current communication practices employed by CNSC, with regard to concerns raised by Indigenous Nations and communities surrounding spent fuel at PNGS?
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The CNSC proactively engages in open and transparent dialogue with Indigenous Nations and communities to inform them of activities that may be of interest, address their concerns, seek their input, and encourage and support their participation in Commission proceedings. Upon request, and as part of regular meetings with Indigenous Nations and communities, CNSC staff provide information and answer questions with regards to regulatory requirements and oversight activities pertaining to spent fuel and waste management in Canada. Additionally, the CNSC encourages licensees to provide information and engage potentially interested Indigenous Nations and communities regarding their waste management activities and facilities. The CNSC has Terms of Reference for long-term engagement with several Indigenous Nations with rights and interests in relation to the PWMF including:

- the Mississauga's of Scugog Island First Nation (MSIFN)
- Curve Lake First Nation (CLFN)
- Hiawatha First Nation (HFN)

The CNSC also has a Terms of Reference with the Métis Nation of Ontario (MNO) who have interests in relation to the PWF.

As part of the Terms of References between the CNSC and Indigenous Nations and communities, CNSC staff collaborate with each Nation and community to co-develop work plans on an annual basis that identify the key issues and topics for discussion. This includes waste management at the PWF, and this licensing basis amendment. As part of these discussions CNSC staff bring in subject matter experts (SME) to answer questions and have meaningful dialogue regarding areas of interest or concern.

Participant Funding was provided for this licensing basis amendment and made available beginning on November 21, 2023. In addition to providing this information through the CNSC mailing list and website, CNSC staff reached out directly to Indigenous Nations and communities with rights and interests relating to the PWF on December 1, 2023. CNSC sent an additional update email on March 3, 2024, to the same Indigenous Nations and communities.

In April 2024, CNSC staff organized meetings regarding several Pickering licensing activities and brought in SMEs to give a special site-wide summary of each of OPG's ongoing and anticipated Pickering related applications including this PWF licensing basis amendment. These meetings were in addition to continued engagement carried out in regularly scheduled meetings. SMEs answered questions and had a dialogue with representatives of each Nation. Meetings between CNSC staff and MSIFN took place on April 9, 2024, and CNSC staff had meetings with CLFN, as well as HFN on April 18, 2024.

CNSC staff discussed OPG's PWF licensing basis amendment with MNO representatives through regularly scheduled monthly meetings, and an offer to present to MNO Region 8 was sent on April 3, 2024. MNO has not, to date, expressed a desire for a similar meeting, however CNSC staff remain open to providing such an overview and continuing discussions of interest to MNO Region 8, and the MNO more broadly. CNSC staff recognize that spent fuel and waste management is an area of great interest for many Indigenous Nations and communities.

CNSC staff meet monthly with OPG representatives to discuss engagement and consultation on all of their facilities and operations including the Pickering Nuclear Generating Station (PNGS) and the PWF. Concerns raised by Indigenous Nations and communities in relation to the licensing basis amendment for the PWF are discussed in these meetings. CNSC staff expect OPG to continue to engage and communicate regularly with Indigenous Nations and Communities with rights and interests in relation to the PWF.

Finally, CNSC staff maintain issues and concerns tables for all Indigenous Nations and communities who have rights and interests in relation to CNSC regulated facilities and activities, including in relation to the PWSMF. CNSC staff follow up with any Indigenous Nation and community who expresses an interest and raises questions and concerns about the PWSMF or any nuclear facility and activity and ensures that the Nation receives a response from CNSC staff and an opportunity to discuss and work collaboratively to address their issues and concerns.

Conclusion

CNSC staff's conclusion remains unchanged, and staff conclude, in accordance with [CMD 24-H102](#) that:

1. OPG has adequately assessed the hazards associated with licensed and proposed activities through safety assessments and demonstrated an adequate level of protection of the workers, the public and the environment over a broad range of operating conditions.
2. OPG has demonstrated that the design considerations for processing and storing up to 100 DSCs with 6-year cooled fuel meet the regulatory requirements.
3. OPG remains qualified to carry on the activities authorized in the WFOL and continues to make provisions to protect workers, people, and the environment, and support Canada's international commitments to non-proliferation.

References

- [1] CMD 24-H102-Q "Request for Information from the Commission for OPG and CNSC Staff in the matter of application for a licensing basis amendment for the Pickering Waste Management Facility", July 3, 2024, e-Doc 7314620.
- [2] CMD 24-H102.1A "Ontario Power Generation – Application to Change the Licensing Basis for the Pickering Waste Management Facility", December 22, 2023, e-Doc 7259935.
- [3] CMD24-H102 "Submission from CNSC Staff – OPG's Pickering Waste Management Facility Licensing Basis Amendment", April 8, 2024, e-Doc 7256089.