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24-H101.A & 24-H101-Q.A

Response to Commission Request for
Information

Réponse à une demande d'information
de la Commission

**Ontario Power Generation
Inc.**

**Ontario Power Generation
Inc.**

**Darlington Nuclear
Generating Station**

**Centrale nucléaire de
Darlington**

Public Hearing in Writing

Audience publique par écrit

Submitted by:
CNSC Staff

Soumise par :
Le personnel de la CCSN

Signed/signé le

21 May 2024 / 21 mai 2024

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Background

Pursuant to paragraphs 24(4)(a) and (b) of the [Nuclear Safety and Control Act](#),¹ a panel of the Commission has been established to consider Ontario Power Generation's (OPG) application for an amendment to the Darlington Power Reactor Operating Licence (PROL) 13.03/2025. Commission Proceeding 24-H101 is being conducted in writing to consider the matter of the commercial production of cobalt-60 (Co-60) radionuclides at the Darlington Nuclear Generating Station (NGS).

In this CMD, CNSC staff are providing written responses to one (1) question from the Commission directed to CNSC staff in a second round of questions (provided in Commission Member Documents [CMD] [24-H101-Q.A](#) [1]). CNSC staff's current submission does not provide responses to questions that were directed to the applicant, OPG; nor does it address the intervention beyond the questions raised by the panel of the Commission.

In support of CNSC staff's current CMD 24-H101.B, CNSC staff have considered the following written submissions, following the Commission's first round of questions which included [CMD 24-H101-Q](#) [2], provided by:

- ❖ CNSC staff
 - [CMD 24-H101.A – Supplementary submission from CNSC Staff](#)
- ❖ OPG
 - [CMD24-H101.1D – Supplementary submission from Ontario Power Generation](#)
- ❖ 1 additional intervenor
 - [CMD 24-H101.14 – Submission from the Saugeen Ojibway Nation](#)

¹ *Nuclear Safety Control Act (NSCA) [S.C. 1997, c. 9]*

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 | <p>In CMD 24-H101.D, CNSC staff note that “in the coming years, before the cobalt sources produced at Darlington NGS have reached the commercial-end-of-life, CNSC staff, Nordion, OPG, and Bruce Power will engage with potentially interested Indigenous Nations and Communities regarding their proposed plans for the transportation, management, and interim storage of the spent Co-60. CNSC staff expect this engagement will include the Saugeen Ojibway Nation, the Historic Saugeen Métis, and the Métis Nation of Ontario.”</p> <p>Describe CNSC staff's consultation activities with SON, the Historic Saugeen Métis, and the Métis Nation of Ontario regarding the proposed licensed activities as well as the transportation, interim storage, and potential final disposal of cobalt-60 sources.</p> |
|----|---|

For the record, CNSC staff note that CMD 24-H101.D was OPG's supplemental CMD responding to the Commission's questions in [CMD 24-H101-Q](#) [2]. The text the Commission has quoted was from CNSC staff's [CMD 24-H101.A](#) [3].

CNSC staff's reviews, engagement, and recommendations to the Commission support the Commission's evaluation under section 24(4) of the NSCA whether an applicant is qualified and will take 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. While OPG's proposal / application does fit into the larger landscape of the Co-60 supply chain – which includes processing, transportation, use, and disposal activities that will not be performed by OPG-Darlington – the proposed PROL amendment will only authorize OPG to produce, possess, transfer, use, package, manage, and store the Co-60 radionuclide at the Darlington site.

When forming recommendations to the Commission, CNSC staff considered whether the new activities being proposed can be conducted safely with an acceptable level of risk. As such, CNSC staff's recommendations activities are limited in scope to the activities that will be undertaken under the amended Darlington NGS PROL. Further, the focus of CNSC staff's engagement was on the Indigenous Nations and communities with rights and interests in relation to the Darlington NGS, or the only facility which licence was requested to be amended. In support of CNSC's engagement activities for this licensing proceeding, CNSC staff began engaging with Indigenous Nations and

communities with potential rights or interests in the Darlington area in November 2022, following the submission of OPG's *Darlington NGS – Cobalt-60 Production Modifications Project – Indigenous Engagement Plan* [4]. OPG's submission of the application addendum, which identified the independent down-stream involvement of Bruce Power, was not received until December 2023 [5].

All other aspects of the Co-60 supply chain and use – including the use of the Bruce NGS site for interim management of Co-60 sources that have reached end of commercial life – are to be carried out under already existing CNSC licences or certificates. Each of these licences or certificates are approved by the Commission or a designated officer (DO). It is CNSC staff's understanding that the proposed production of Co-60 at Darlington does not result in any new activities to be carried out in the Co-60 supply chain (*i.e.*, processing, transportation, interim storage, and final disposal); nor will they affect the licensing basis of these existing activities. CNSC staff emphasize however that all of these existing activities are subject to regulatory oversight from the CNSC.

CNSC staff acknowledge the Saugeen Ojibway Nation (SON's) interest in activities downstream of the production of Co-60 at Darlington NGS. SON representatives first brought these concerns forward to CNSC staff in a regularly scheduled meeting on April 16th 2024, shortly ahead of their submission of their intervention filing ([CMD 24-H101.14](#)). In light of the SON's concerns and intervention, CNSC staff's first response submission ([CMD 24-H101.A](#)) emphasized the importance of ongoing engagement and dialogue to address any concerns raised as activities related to the Co-60 supply chain evolve throughout the industry.

CNSC staff will continue to engage further on this topic with the SON, and other interested Nations and communities, through existing [Terms of Reference for Long Term Engagement](#) (ToR) and regular meetings. In accordance with existing engagement processes and the ToR, CNSC staff are responding to the SON's concerns in writing in order to clarify the context around the Co-60 supply chain / life cycle. Specifically, CNSC staff are providing information to distinguish the activities associated with the proposed amendment application currently before the Commission, and the relationship to existing Commission approved activities, from the SON's existing concerns raised with regards to current practices and future proposals for management and interim storage of nuclear waste at facilities in or near their territories.

CNSC staff are open to engaging with other interested Nations and communities, including the Historic Saugeen Metis (HSM) and the Metis Nation of Ontario (MNO), should they express an interest in management of spent Co-60 sources at the Bruce site. However, to-date, both HSM and MNO have not raised specific concerns with the CNSC regarding the Darlington PROL amendment application.

CNSC staff expect that industry, across the Co-60 supply chain and life cycle, including OPG, will continue to engage meaningfully on currently licensed activities and ongoing

operations of interest to Indigenous Nations and communities. CNSC staff remain committed to working with the SON and any other Indigenous Nations and communities on any topic of interest under the CNSC's mandate and responding to and addressing their concerns, including providing clarity with regards to this current application before the Commission and how it relates to the broader Co-60 supply chain and related processes.

CONCLUSION

CNSC staff's conclusion remains unchanged, and staff conclude, in accordance with [CMD 24-H101](#) that OPG has adequate provisions in place to ensure the safe production, possession, transfer, use, packaging, management and storage of Co-60. The installation and operation of related equipment will not result in significant doses to workers or members of the public and will not result in significant releases to the environment. In addition, the existing security and safeguards program in place is sufficient for the production of Co-60. Under the amended PROL, OPG will continue to be responsible for protecting the health and safety of the public, as well as the environment. CNSC staff continue to recommend that the Commission amend the Darlington PROL to include a new authorized activity and licence condition related to the commercial production of Co-60 at Darlington NGS.

References

Referenced documents in this CMD are available to the public upon request, subject to confidentiality considerations.

- [1] Commission Panel Questions CMD, "Questions from Commission Panel Members in the matter of application for a licence amendment for the Darlington Nuclear Generating Station regarding the commercial production of Cobalt-60 ", CMD 24-H101-Q.A, 2024-05-09. [e-Doc [7278753](#) (Word), [7279382](#) (PDF)] *Public*
- [2] Commission Panel Questions CMD, "Questions from Commission Panel Members in the matter of application for a licence amendment for the Darlington Nuclear Generating Station regarding the commercial production of Cobalt-60," CMD 24-H101-Q, 2024-04-22. [e-Doc [7264474](#) (Word), [7265061](#) (PDF)] *Public*
- [3] CNSC staff CMD, "CNSC staff responses to questions from Commission Panel Members in the matter of application for a licence amendment for the Darlington Nuclear Generating Station regarding the commercial production of Cobalt-60," 24-H101.A, 2024-05-02. [e-Doc [7268489](#) (Word), [7272300](#) (PDF)] *Public*
- [4] OPG email, A. Bhardwaj to S. Baskey, "Darlington NGS – Cobalt-60 Production Modifications Project – Indigenous Engagement Plan," 2022-11-09. [CD# NK38-CORR-00531-23812, e-Doc [6918830](#), [6918831](#), [6918832](#), [6918833](#)] *Pro B(R)*
- [5] OPG letter, R. Geofroy to M. Bacon-Dussault, "Darlington NGS – Addendum to the Application for Darlington Nuclear Generating Station Power Reactor Operating Licence 13.03/2025 Amendment for Production of the Cobalt-60 Radioisotope," 2023-12-22. [CD# NK38-CORR-00531-25073 P, e-Doc [7194511](#), [7194514](#)] *Public*