



**Written submission from
Métis Nation of Ontario**

**Mémoire de la Nation métisse de
l'Ontario**

In the Matter of the

À l'égard d'

Ontario Power Generation Inc.

Ontario Power Generation Inc.

Application for a licence to construct one BWRX-300 reactor at the Darlington New Nuclear Project Site (DNNP)

Demande visant à construire 1 réacteur BWRX-300 sur le site du projet de nouvelle centrale nucléaire de Darlington (PNCND)

**Commission Public Hearing
Part-2**

**Audience publique de la Commission
Partie-2**

January 2025

Janvier 2025



Métis Nation of Ontario
Lands, Resources and Consultations

November 5, 2024

Delivered via Email

Louise Levert

Senior Tribunal Officer, Commission Registry

Canadian Nuclear Safety Commission

Interventions@cnsccsn.gc.ca

RE: Review of the Ontario Power Generation Inc. Application for a Licence to Construct one BWRX-300 reactor at the Darlington New Nuclear Project Site (DNNP) and the Commission Member Documents 24-H3 and 24-H3-B

Dear Louise Levert and Canadian Nuclear Safety Commission Staff,

Please accept the following submission by the Métis Nation of Ontario (“MNO”) Region 8. The Darlington New Nuclear Project (“DNNP”) Site is located within the administrative boundaries of MNO Region 8. This administrative boundary is **outside** of the recognized traditional territories of the recognized historic Métis communities in Ontario.¹

To clarify, the MNO does not assert that there are any Métis lands and resources rights in MNO Region 8, and specifically the Darlington New Nuclear Project area which we understand is located on the traditional territory of the Wendat, Anishinabek Nation, and the Williams Treaties First Nations, and as such we respectfully defer to them on lands and resources related issues in this territory. The MNO Region 8 Consultation Committee, being the elected leaders of the MNO citizens living in the vicinity of the project, have expressed interest in engaging on the project on behalf of these Métis citizens who are also Ontario residents and interested stakeholders given the potential impacts on them as individuals. Our goal is to be informed, engaged, and knowledgeable for the purposes of preparedness, solidarity, and protection of living ecosystem health in the territory which we live on as visitors.

To this end, Lands, Resources and Consultations (“LRC”) staff reviewed the relevant documentation related to the Ontario Power Generation Inc. (“OPG”) Application for a Licence to Construct one BWRX-300 reactor at the DNNP Site (the “Application”) on behalf of MNO Region 8 leadership. This included review and consideration of:

- Commission Member Document (“CMD”) 24-H3 (written submission from CNSC),
- CMD 24-H3.1 (written submission from OPG), and
- CMD 24-H3-B (supplemental submission from CNSC).

The DNNP is located on the site of the Darlington Nuclear Generating Station in the Municipality of Clarington, Ontario. The DNNP site is operated by OPG under a Power Reactor Site Preparation Licence (PRSL) 18.00/2031 [R1-1], and its associated *Licence Conditions Handbook* (LCH), which the Canadian Nuclear Safety Commission (“CNSC” or the “Commission”) renewed in 2021. In December 2021, OPG announced its selection of the General Electric Hitachi BWRX-300 reactor for deployment at the DNNP site. The BWRX-300 is a 327-megawatt electric (MWe) water-cooled, natural circulation boiling water reactor. In October 2022, OPG applied for a licence to construct one BWRX-300 reactor. In April 2024, the CNSC announced the Commission decision that the existing environmental assessment (EA) for the DNNP, which covers the full project lifecycle, is applicable to the BWRX-300 reactor. Pending regulatory approvals,

¹ [Identification of Historic Métis Communities in Ontario](#), Indigenous Affairs Ontario, August 22, 2017

construction is expected to start in 2025 and be completed by the end of 2028. OPG plans to submit a Licence to Operate application in 2026, with commercial operation of the first unit anticipated for 2029.

The LRC staff review, and our submission based on that review herein, focused on the above noted documents in the context of involvement, engagement, and areas of interest for MNO citizens living within MNO Region 8. Please see below for summaries of information within the above noted documents and key comments for your consideration.

MNO Region 8's Understanding of Commission Member Documents 24-H3, 24-H3-B, and 24-H3.1

Within CMDs 24-H3 and 24-H3-B, the CNSC describes an overview of the matter being presented, conclusions and recommendations, a discussion of consultation and engagement undertaken with stakeholders and other matters of regulatory interest including safety and control areas (SCAs) relevant to OPG's submission. CNSC staff have concluded that OPG is qualified to carry out the proposed activity of constructing a single BWRX-300 reactor and will make adequate provision for the protection of the environment, the health and safety of persons, and maintain national security and measures required to implement international obligations to which Canada has agreed. CNSC staff recommend that the Commission issues a new Power Reactor Construction Licence. CNSC staff have determined that OPG's requested 10-year licence to construct period is adequately substantiated.

Within CMD 24-H3.1, OPG describes the history of the DNNP site, activities undertaken to date, and outlines how they have met or exceeded requirements and are qualified to undertake construction of one BWRX-300 unit. The CMD describes the DNNP as a multi-year construction project for a single BWRX-300 and associated support structures at the DNNP site, including a general description of the BWRX-300 unit.

First-of-a-Kind Technology

To address compliance oversight for the BWRX-300 first-of-a-kind reactor technology, the CNSC is proposing a construction licence with conditions including regulatory hold points (RHPs). The use of hold points allows for and ensures that phased construction meets licence conditions and safety at key milestones before licensed construction can proceed.

The three RHPs outlined in CMD 24-H3 are:

- Regulatory Hold Point 1: Installation of the Reactor Building (RB) Foundation. The removal of this RHP would authorize OPG to place the foundation for the RB and commence civil construction of the RB structure, internal civil structures, and internal RB systems and components.
- Regulatory Hold Point 2: Installation of the Reactor Pressure Vessel (RPV). The removal of this RHP would authorize OPG to install the RPV and associated structures and components, as well as complete the appropriate installations of critical components, and conduct limited component testing.
- Regulatory Hold Point 3: Fuel-Out Commissioning. The removal of this RHP would authorize OPG to conduct full-scale testing and commissioning of installed structures, systems, and components.

Commitments linked to RHPs must be completed before OPG can apply for RHP removal.

Comments on the Theme of Emergency Preparedness and Security

A detailed nuclear emergency preparedness program is not required for the construction phase when no nuclear fuel will be present. However, regulatory requirements require submission of a fully developed program should OPG apply for a Licence to Operate.

As stated in the reviewed documents, any potential for nuclear and radiological emergencies at the DNNP would result from incidents at the adjacent Darlington Nuclear Generating Station (DNNGS). As the DNNP site is co-located within the controlled area of the DNNGS, access is restricted by installed fences and signage except for the northern and western portions occupied by the Waterfront Trail and the soccer fields, respectively. MNO Region 8 has concerns that certain construction activities (i.e., vibration or disturbance from deep excavation) could potentially affect the DNNGS and seeks assurance that this has been appropriately accounted for in engineering studies or other construction plans. MNO Region 8 requests that OPG also share any additional security measures that will be implemented to secure the site from the public utilizing the Waterfront Trail and/or soccer fields, which may be regularly used by many Ontarians, and in particular MNO Citizens living in MNO Region 8.

Emergency preparedness programs and implementation can be future points of discussion between MNO Region 8 and OPG. MNO Region 8 citizens may continue to have perception-based concerns (i.e., objection, mistrust, or misinformation) regarding new nuclear development and first-of-a-kind technologies. MNO Region 8 is open to collaborate on efforts to increase public understandings of energy demand, emergency preparedness, and nuclear facilities, and would welcome engaging further with OPG on this topic.

Comments on the Theme of Public Accountability

As outlined in CMD 24-H3.1, we understand that OPG has undertaken studies with respect to hydrology, hydrogeology, noise/dust, and vibration to ensure species at risk will be protected during construction activities.

MNO Region 8 requests access to the following data which should be shared with interested stakeholders directly, and published for the purpose of public awareness, education, transparency, and the public record:

- Monitoring programs for potential environmental effects requiring additional mitigation measures, including:
 - o radiological environmental monitoring program;
 - o groundwater monitoring program;
 - o water and sediment quality monitoring program;
 - o terrestrial and aquatic habitat mitigation and habitat compensation measures;
 - o fish impingement and entrainment data and mitigation measures;
 - o bank swallow habitat management and mitigation measures;
 - o bat habitat management and mitigation measures
 - o EA Monitoring and EA Follow-Up programs of Condenser Cooling Water (CCW) system construction
- ERA which captures environmental and human health risks from proposed LTC activities
- Predictive Environmental Risk Assessment (PERA)

MNO Region 8 looks forward to ongoing engagement and dialogue between Ontario Power Generation Inc., the CNSC, and MNO Region 8 going forward as is needed and appropriate.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kate Stewart-McNeil', written in a cursive style.

Kate Stewart-McNeil
Regional Councilor, Region 8