



CMD 26-H7.39A

Date: 2026-09-21

Supplementary Information

Presentation from the Canadian Environmental Law Association

In the matter of

Ontario Power Generation

Application to refurbish Pickering Nuclear
Generating Station and to renew licences
for the Pickering Nuclear Generating
Station and Waste Management Facility

Commission Public Hearing Part 2

October 6-9, 2026

Renseignements supplémentaires

Présentation de l'Association canadienne du droit de l'environnement

À l'égard de

Ontario Power Generation

Demande concernant la réfection de la
centrale nucléaire de Pickering et le
renouvellement de ses permis pour la
centrale et l'installation de gestion des
déchets

Audience publique de la Commission Partie 2

6-9 octobre 2026

Ontario Power Generation's Application for Authorization to Refurbish the Pickering Nuclear Generating Station and Renew its Pickering Nuclear Generating Station and Waste Management Facility Licences



Ref. 2026-H-7

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October, 2026



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Photo: Linda Pim

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Intervenors

Durham Nuclear Awareness (DNA) is a citizens' group with a longstanding interest in the Darlington Nuclear Generating Station. DNA was first organized in 1986 in the wake of the Chernobyl disaster and born out of a need for people in Durham Region to come together, learn & empower themselves. As a volunteer group of concerned citizens, DNA dedicates themselves to raising public awareness about nuclear issues facing Durham Region, and fostering greater public involvement in the nuclear decision-making process.

Slovenian Home Association (SHA) is a non-profit cultural organization dedicated to the preservation of Slovenian culture language, heritage and identity in Canada. Many Slovenians reside in the vicinity of the Pickering and Darlington nuclear plants and are concerned about the proposed plans to expand nuclear power generation within the region, particularly with OPG proposing novel reactor technology at the Darlington site. Much of these concerns stem from emergency planning for nuclear accidents



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Scope of Review of Intervenor

- Review OPG's licence renewal application and related documentation
- Focus on licensing powers under s.24(4)(b):
 - Compliance with regulatory requirements
 - Safety systems and measures
 - Emergency planning
 - Population growth in the region
 - Relevant international guidance

Presentation Outline

- Key concerns
 - Commission's roles under s.24(4) of NSCA
 - Documentary disclosure and insufficiency of evidence
 - Emergency preparedness is insufficient to meet requirements of s. 24(4)
- List of recommendations (Appendix A, Pages 74-79)
- Orders requested



Introduction

- Commission's decision is very significant and will impact the community for decades into the future
- Commission must meet the legislated requirements of the *Nuclear Safety and Control Act*
 - Over-reliance on hold points in past
 - Reject OPG's approach to finalize key decisions and disclose or conduct key analyses after the hearing
- If the Commissioners cannot form an opinion on all key issues, the licence application should be denied.

Legislative Framework

Section 24(4) of the NSCA:

24(4) No licence shall be issued, renewed, amended or replaced – and no authorization to transfer one given – unless, in the opinion of the Commission, the applicant or, in the case of an application for an authorization to transfer the licence, the transferee

(a) is qualified to carry on the activity that the licence will authorize the licensee to carry on; and

(b) will, in carrying on 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.



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Do Public Interventions Matter?

- Saher Khan report found that public concerns rarely shape the final licensing outcome (Appendix B, Vol. 1, Tab 5)
 - Intervenor issues are often dealt with outside of the hearing
 - Technical and safety considerations are often dealt with through scope limitation, hold points or staff level review, raising transparency concerns



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Non-Compliance Trends During Licensing Period

- Review of Regulatory Oversight Reports for 2020-2024 reveal concerning trend of non-compliance
 - Table 1 in Submission outlines number of negligible, low safety significance and medium safety significance instances of non-compliance
 - Increase in non-compliance in Management, Human performance, Fitness for Service, Security SCAs
- OPG RegDoc 3.1.1 Reporting for 2025, 2026 includes reports of non-compliance



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Non-Compliance Trends During Licensing Period

- Non-compliance in recent years is relevant to whether there is a safe work culture
- CNSC should explain how it intends to ensure full compliance with all SCAs



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Probabilistic Risk Assessment - Transparency and Disclosure

- Commission should ensure it has the results of the PSA3, which evaluates safety issues related to the refurbished operations
- Prior results related only to previous configurations of Pickering NGS
- Most recent PSA related to refurbished plant not made available, despite OPG reliance on it in hearing documents

Probabilistic Risk Assessment - Transparency and Disclosure

Intervenors also request:

- Disclosure of Global Assessment Report, anticipated to be completed in August 2026
- Completion and Disclosure of Integrated Implementation Plan, anticipated to be completed in 2027.



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Probabilistic Risk Assessment

- Pickering B Summary Report for PSA, 2018
 - Many aspects of report considered prior configurations of the plant
 - Many of factors would be fundamentally different
 - Critical for Commission and public to review and consider PSR3 report and findings in relation to gaps, opportunities for safety improvements

Disclosure is Inadequate

- OPG should immediately disclose PSR3 documents that are completed and have been submitted to the CNSC
- Intervenors seek a further opportunity for submissions on Global Assessment Report and Integrated Implementation Plan prior to a decision by Commission

Changes to Pickering B if it is Refurbished

- OPG should demonstrate how safety will be improved
 - Planning work and analysis on safety improvements must be explained at the hearing and prior to s.24(4) decision
 - The “Safety Improvement Opportunities” and major component replacements will be key inputs to development of Integrated Implementation Plan (not completed)



Changes to Pickering B if it is Refurbished

- Lack of detail about proposed changes to pre-existing configurations between Pickering A and Pickering B
 - OPG states that systems will be separated
 - Commission must require detailed information on post-refurbishment state and safety improvements



Emergency Response and Preparedness

- S.24(4)(a) and (b) provide the CNSC with authority over off-site emergency planning
- No recent site-specific Implementing Plan for the Provincial Nuclear Emergency Response Plan (PNERP)
- Application information about population growth in the Durham Region, the KI distribution requirements, evacuation time estimates, and traffic management protocols are obsolete.



Emergency Response and Preparedness

- Intervenors recommend that a decision is not made under s.24(4) until:
 - A PNGS-specific Implementing Plan under PNERP 2025 has been finalized, reviewed, and made available for full public scrutiny in a subsequent hearing
 - Analysis of compliance with draft REGDOC-2.10.1, Version 3 is complete



Planning Basis

- The licence renewal and refurbishment of PNGS will involve heightened operational complexity
- The ‘Beyond Design Basis Accident’ planning basis for the refurbishment has not been disclosed.
- Commitments to conduct gap analyses and implementation plans in the future mean the Commission is deciding on the *intent* to demonstrate legal compliance rather than the *proven* capability to do so.

Planning Basis

- The planning basis is inadequate
 - Remains reliant on a single-unit Design Basis Accident
 - Assumes 48-hour containment hold-up time prior to accidental radiological releases
 - If containment were to fail early, 17-hour evacuation time identified in 2023 Evacuation Time Estimate (ETE) study would affect thousands of people
- Regional infrastructure, including hospital capacity and evacuation routes, is not evaluated for a Level 7 accident on the International Nuclear and Radiological Event Scale



Planning Basis

- Commission should formally adopt the Draft REGDOC-2.10.1 Version 3 requirement to account for “multi-unit and/or multi-module accident scenarios” occurring during refurbishment activities.

Detailed and Contingency Planning Zones

- ETE Report should be updated to reflect recent population objectives and growth trends.
- Current 10-km detailed planning zone
 - Significant congestion extends the time to evacuate the population in the detailed planning zone to as long as 17 hours
- Contingency planning zone is not prioritized because of PNERP
 - 2023 ETE found that evacuation time for broader 20 km zone is nearly 3 times longer than estimates provided for Pickering plant in 2008



Detailed and Contingency Planning Zones

- Recommend expanding emergency planning zones
 - Extend Detailed Planning Zone to 30 km
 - Extend Contingency Planning Zone to 50 km
- The current zones have been in place since 1988 and have not been altered despite the experience of Chernobyl and Fukushima



Detailed and Contingency Planning Zones

- IAEA Safety Guide GS-G-2.1 provides that the Urgent Protection Action Planning Zone, analogous to DPZ, should have a radial distance between 5 and 30 km.
- Recommend development of legally binding, facility-specific evacuation protocols
 - Including pre-arranged receiving facilities, dedicated transport, staffing ratios, medical transfer arrangements) for all hospitals, long-term care homes, and retirement residences in the DPZ and CPZ



Ingestion Planning Zone

- Only extends to 50 km
- Not reflective of experience at Chernobyl and Fukushima
- Recommend expanding it to 100 km
 - Part of detailed planning for severe offsite accidents so that appropriate monitoring of food, agricultural products, milk, and water is established



Potassium Iodide Pre-Distribution

- The CNSC REGDOC-2.10.1 Version 2 requires all licensees to pre-distribute potassium iodide (KI) pills or iodine thyroid-blocking (ITB) agents to all residences, businesses and institutions only within the 10 km Detailed Planning Zone
- Request-based approach has proven ineffective for people living in 10-50 km area
- Recommend that the Commission require all licensees to:
 - Provide KI pill pre-distribution to all schools, daycare centres, long-term care facilities, hospitals, and other places frequented by vulnerable groups within a 50 km radius
 - Extend KI pill stockpiles to 100 km



Population Growth and Adequacy of Off-Site Emergency Preparedness

- S.24(4) requirements are not met
- The off-site emergency preparedness and evacuation framework is not adequate for the population that currently exists or for the projected future population



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Population Growth and Adequacy of Off-Site Emergency Preparedness

- PNGS is located in one of Canada's largest and fastest-growing urban regions
- Provincial and municipal growth policies are directing substantial residential intensification in communities surrounding PNGS
- Emergency planning estimates do not reflect projected growth

Population Growth and Adequacy of Off-Site Emergency Preparedness

- Recommend a licence condition requiring OPG to complete an updated ETE incorporating:
 - 2026 Census data
 - Forward-looking population projections through the end of the licence term
- Updated projections should be shared with public and open to comment
- Direct coordination between updated ETE and Implementing Plan under PNERP is needed



Not suitable site

- Modern nuclear siting standards recognize that population density, population growth, geographic constraints, and the feasibility of emergency response are fundamental elements of site suitability.
- Located near critical transportation infrastructure
- Lake Ontario is drinking water for millions of residents of Greater Toronto Area
- This site does not meet modern standards. Safety with respect to emergency planning cannot be demonstrated.

Orders Requested

- Order denying OPG's request for a 10-year licence on the basis that:
 - a. There is insufficient evidence before the Commission to form an opinion on whether OPG could prevent unreasonable risk to the environment and to the health and safety of persons; and
 - b. Off-site emergency planning and preparedness at Pickering is insufficient to protect human health and the environment;



Orders Requested

- Order deferring a decision on the licence renewal application until the Commission has an opportunity to review the Integrated Implementation Plan, and consider the adequacy of protection of the public in light of the additional safety analysis and insights provided by the completed Probabilistic Safety Assessment for a refurbished Pickering B.

Orders Requested

- Order deferring a decision on the licence renewal application until a PNGS-specific Implementing Plan under Ontario's Provincial Nuclear Emergency Response Plan 2025 has been finalized, reviewed, and made available for full public scrutiny in a subsequent hearing.



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Orders Requested

- Order denying CNSC staff's recommendation for a 10-year licence renewal;
- Order directing OPG to immediately disclose all PSR3 documents; and
- Order directing OPG to revise its licence renewal application, considering all of the deficiencies and recommendations herein.