



Summary Record of Decision

DEC 24-H5

In the Matter of

Applicant Ontario Power Generation Inc.

Subject Application to extend the operation of the
Pickering Nuclear Generating Station Units
5 to 8 until December 31, 2026

Summary
Record of
Decision
Date
October 11, 2024

SUMMARY RECORD OF DECISION – DEC 24-H5

Applicant: Ontario Power Generation Inc.

Address/Location: 700 University Avenue, Toronto, Ontario, M5G 1X6

Purpose: Application to extend the operation of the Pickering Nuclear Generating Station Units 5 to 8 until December 31, 2026

Application received: June 16, 2023

Hearing: *Notice of Public Hearing and Participant Funding* published on August 8, 2023

Revised Notice of Public Hearing and Participant Funding published on May 21, 2024

Summary Record of Decision Date: October 11, 2024

Panel of Commission: Dr. T. Berube, Acting President
Dr. M. Lacroix
Ms. A. Hardie

Applicant Represented By		Document Number
R. Geofroy	Deputy Chief Nuclear Officer and Pickering Site Vice President (Acting)	CMD 24-H.5.1 CMD 24-H5.1A CMD 24-H.5.1B CMD 24-H5.1C
S. Irvine	Vice President, Nuclear Regulatory Affairs	
E. Tarle	Deputy Site Vice President, Pickering Nuclear Generating Station	
C. John	Senior Manager, Indigenous Relations	
H. Rambukkana	Director of Operations and Maintenance (Eastern), Nuclear Sustainability Services	
A. MacDonald	Senior Manager, Major Components Engineering Department	
S. Preston	Director, Emergency Management and Fire Protection	
R. Aroda	Director, Station Engineering Pickering	
D. Kakuzhyil	Senior Manager, Pickering Nuclear Safety	
J. Knox	Director, Stakeholder Relations	
L. Corkum	Director, Radiation Safety	
R. McCalla	Director, Environment Health & Safety	
J. Ronald	Assistant Operations Senior Manager	

CNSC staff		Document Number
A. Viktorov	Director General, Directorate of Power Reactor Regulation, Directorate of Power Reactor Regulation	CMD 24-H5 CMD 24.H5.A CMD 24.H5.B
R. Richardson	Director, Pickering Regulatory Program Division, DPRR	
D. MacDonald	Senior regulatory Program Officer, Pickering Regulatory Program Division, DPRR	
M. Martin	Policy Officer, Indigenous and Stakeholder Relations Division, Strategic Planning Division	
A. Levine	Team Leader, Indigenous Consultation and Participant Funding, Indigenous and Stakeholder Relations, SPD	
S. Langille	Technical Specialist, Operational Engineering Assessment Division, Directorate of Assessment and Analysis	
R. Tennant	Director, Transport Licensing and Strategic Support Division, Directorate of Nuclear Substance and Regulation	
L. Désaulniers	Director, Personal Certification Division, Directorate of Safety Management	
N. Kline	Senior Regulatory Program Officer, Pickering Regulatory Program Division, DPRR	
S. Gyepi-Garbrah	Technical Specialist, Reactor Behaviour Division, DAA	
N. Hammouda	Technical Specialist, Reactor Physics and Thermalhydraulics Division, DAA	
J. Truong	Senior Project Officer, Wastes and Decommissioning Division, Directorate of Nuclear Cycle and Facilities Regulation	
L. Hagen	Human and Organizational Factors Specialist, Human and Organizational Performance Division, DSM	
Z. Bounagui	Director, Probabilistic Safety Assessment and Reliability Division, DAA	
Intervenors		
See Appendix A		
Other Government Representatives		
Emergency Management Ontario: M. Munro		
Fisheries and Oceans Canada: S. Eddy		

<p>Licence: Amended</p> <p>Operation of Pickering Nuclear Generating Station Units 5 – 8 to December 31, 2026: Authorized</p> <p>Operation of Pickering Nuclear Generating Station Units 5 – 8 up to a maximum of 305,000 Equivalent Full Power Hours: Authorized</p>
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1.0 INTRODUCTION

1. On June 16, 2023, Ontario Power Generation Inc. (OPG) submitted an application to the Canadian Nuclear Safety Commission¹ (CNSC), under subsection 24(2) of the [Nuclear Safety and Control Act](#)² (NSCA), for an amendment to the power reactor operating licence for its [Pickering Nuclear Generating Station](#) (PNGS) located in the Municipality of Durham, Ontario. The PNGS site is located on the traditional lands and waters of the Michi Saagiig Anishinaabeg, the Gunshot Treaty (1877-88), the Williams Treaties (1923), and the Williams Treaties Settlement Agreement (2018).
2. The PNGS is comprised of two reactor facilities, PNGS-A and PNGS-B, which together include 8 CANDU³ reactors and their associated equipment. Units 1-4 (PNGS-A) were put in service between 1971 and 1973. Units 5-8 (PNGS-B) were put in service between 1983 and 1986. Units 2 and 3 were defueled in 2008 and are currently in a safe storage with surveillance state. Units 1 and 4 each have a net electrical output of 515 megawatts-electric (MWe). Units 5–8 each have a net electrical output of 516 MWe. The PNGS also produces cobalt-60 (Co-60), a radioisotope with a variety of applications including nuclear medicine and the sterilization of medical and industrial equipment.
3. The current licence, PROL 48.01/2028, was [renewed in August 2018](#)⁴ and expires on August 31, 2028. Under the current licence, OPG is authorized for the continued commercial operation of all reactor units until December 31, 2024, including the operation of PNGS Units 5-8 up to a maximum of 295,000 equivalent full power hours (EFPH). Commercial operation is to be followed by post-shutdown activities associated with the removal of fuel and water in preparation for the safe storage of all units. In its 2018 licensing decision, the Commission noted that operation of any PNGS reactor unit beyond December 31, 2024 would constitute a change to OPG’s licensing basis and would require a decision from the Commission.
4. OPG is seeking authorization to extend the commercial operation of PNGS Units 5-8 until December 31, 2026, and to increase the operating limit for PNGS Units 5-8 up to a maximum of 305,000 EFPH. In support of its application, OPG conducted a re-assessment of the periodic safety review (PSR) and a condition assessment of major components for PNGS Units 5-8. OPG plans to shut down PNGS Units 1 and 4 by December 31, 2024.
5. This *Summary Record of Decision* reflects the substance of the Commission’s decision with respect to this licence amendment and the applicable licence conditions. It is issued now, in light of the pending shutdown on December 31, 2024. The detailed

¹ The *Canadian Nuclear Safety Commission* is referred to as the “CNSC” when referring to the organization and its staff in general, and as the “Commission” when referring to the tribunal component.

² S.C. 1997, c. 9.

³ All nuclear power reactors in Canada are CANDU (Canadian Deuterium-Uranium) reactors. CANDU reactors are pressurized heavy water reactors that use natural uranium as fuel and heavy water as a coolant and moderator.

⁴ CNSC Record of Decision, *Application to Renew the Nuclear Power Reactor Operating Licence for the Pickering Nuclear Generating Station*, December 20, 2018.

reasons for the Commission's decision and its assessment of all of the submissions made on the application will be provided in a detailed *Record of Decision*, to be published at a later date.

Issues

6. In considering OPG's licence amendment application, the Commission is first required to determine whether and to what extent the [Impact Assessment Act](#)⁵ (IAA) imposes requirements in relation to the activities sought to be authorized.
7. Pursuant to paragraphs 24(4)(a) and (b) of the NSCA, in considering whether to amend the licence, the Commission must be satisfied that:
 - OPG is qualified to carry on the activity that the amended licence would authorize; and
 - in carrying on that activity, OPG will 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.
8. As an agent of the Crown, the Commission recognizes its role in fulfilling the Crown's constitutional obligations, along with advancing reconciliation with Canada's Indigenous peoples. The Commission's responsibilities include the duty to consult and, where appropriate, accommodate Indigenous interests where the Crown contemplates conduct which may adversely impact potential or established Aboriginal⁶ or treaty rights.⁷ As such, the Commission must determine what engagement and consultation steps and accommodation measures are called for, respecting Indigenous interests.

Public Hearing

9. On August 8, 2023, the Commission published a [Notice of Public Hearing and Participant Funding](#)⁸ for this matter, which invited requests to intervene by April 29, 2024. On May 21, 2024, the Commission published a [Revised Notice of Public Hearing](#)⁹ to announce the hearing date and location.
10. Pursuant to section 22 of the NSCA, the Acting President of the Commission established a Panel of the Commission over which he would preside, including Dr. M. Lacroix and Ms. A. Hardie, to consider the application. The Commission, in making its decision, considered information presented for a public hearing on June 19 and 20,

⁵ S.C. 2019, c. 28, s. 1.

⁶ "Aboriginal" is the term used in this document when referring to the Crown's duty to consult as that is the term used in s. 35 of the Constitution Act, 1982. In all other cases, "Indigenous" is the preferred terminology and used accordingly.

⁷ *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73; *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director)*, 2004 SCC 74.

⁸ *CNSC Notice of Public Hearing and Participant Funding*, August 8, 2023.

⁹ *CNSC Revised Notice of Public Hearing*, May 21, 2024.

2024 in Pickering, Ontario. The public hearing was conducted in accordance with the [Canadian Nuclear Safety Commission Rules of Procedure](#) (the Rules).¹⁰ During the public hearing, the Commission considered written submissions and heard oral presentations from OPG ([CMD 24-H5.1](#), [CMD 24-H5.1A](#) and [CMD 24-H5.1B](#)) and CNSC staff ([CMD 24-H5](#) and [CMD 24-H5.A](#)). The Commission also considered oral and written submissions from 54 intervenors (see [Appendix A](#) of this *Summary Record of Decision* for a list of interventions). The hearing was webcast live via the CNSC website, with [video archives](#) available following the hearing.

Confidentiality Request

11. Alongside its application and supplemental submission, OPG submitted [requests for confidentiality](#),¹¹ in accordance with subrule 12(1) of the Rules. On June 18, 2024, the Commission issued its [decision](#)¹² on OPG's request for confidentiality, setting out the measures it would take to protect information, pursuant to subrule 12(3) of the Rules.

CNSC Participant Funding Program

12. Pursuant to paragraph 21(1)(b.1) of the NSCA, the Commission has established a Participant Funding Program (PFP) to facilitate the participation of Indigenous Nations and communities, members of the public and stakeholders in Commission proceedings. In [August 2023](#),¹³ up to \$100,000 in funding to participate in this hearing process was made available through the CNSC's PFP. A Funding Review Committee (FRC), independent of the CNSC, reviewed the funding applications received and made recommendations on the allocation of funds. Based on the recommendations from the FRC, the CNSC [awarded a total of \\$92,161.48 to eight applicants](#),¹⁴ and a [subsequent recommendation for up to \\$16,600 to one more applicant](#).¹⁵

Requests for Rulings

13. Pursuant to rule 20 of the Rules, Pickering Harbour Company Limited, Frenchman's Bay Harbour & Marine Service Company Limited (CMD 24-H5.33, CMD 24-H5.33A,

¹⁰ SOR/2000-211.

¹¹ OPG's Requests For Confidentiality of Material Submitted in Relation to CMD 24-H5, March 28, 2024.

¹² CNSC Record of Decision, *Commission Ruling on Request to Protect Confidential Information in the Matter of OPG's application to amend its Pickering Nuclear Generating Station Power Reactor Operating Licence to extend the operation of Pickering Nuclear Generating Station Units 5 to 8 until December 31, 2026*, June 18, 2024.

¹³ CNSC Participant funding notice, *Participant funding for Ontario Power Generation's application for authorization to operate Pickering Nuclear Generating Station Units 5 to 8 until 2026*, August 2023.

¹⁴ CNSC Participant Funding Program decision – *Ontario Power Generation's application for authorization to operate Pickering Nuclear Generating Station Units 5 to 8 until 2026*.

¹⁵ CNSC Participant Funding Program decision – *Meeting with Canadians for Nuclear Energy to discuss Ontario Power Generation's application for authorization to operate Pickering Nuclear Generating Station Units 5 to 8 until 2026*.

and CMD 24-H5.33B) made 3 requests for rulings with respect to lands subject to the exclusion zone¹⁶ around the PNGS, as follows:

1. That the Commission require OPG to provide the intervenor with requested information and with an opportunity to review and respond to that information, before it renders its decision with respect to the extended operation of Pickering Units 5-8
 2. That the Commission use its regulatory authority under the NSCA to require that “OPG address its non-compliance with respect to the exclusion zone affecting our client’s lands as a condition of the renewal of the licence for the Pickering Station”
 3. That the Commission “impose a condition on the granting of the licence through a licence amendment – to either mediate or arbitrate with respect to the continued use and compensation to Pickering Harbour Company Limited, Frenchman's Bay Harbour & Marine Service Company Limited with respect to the restrictions placed upon its lands.”
14. The Acting President of the Commission, as a Panel of the Commission with respect to procedural matters for this hearing, considered the submissions made by the intervenor, as well as OPG and CNSC staff. With respect to the 3 requests for rulings, the Commission decides the following:
1. The Commission does not require OPG to provide the intervenor with the requested information before making its decision on the licence amendment application.
 2. The Commission finds OPG to be in compliance with CNSC regulatory requirements with respect to the exclusion zone for the PNGS. As such, no further action is required from OPG.
 3. The Commission does not impose any condition respecting the request.

Mandate of the Commission

15. Several interventions addressed the economic impact of the PNGS. The Commission notes that, as the regulatory authority over nuclear matters in Canada, it has no economic mandate and does not base its decisions on the economic impact of a facility. It is the health, safety and security of the public, the protection of the environment, national security, and the implementation of the international obligations to which Canada has agreed that guide its decisions, in accordance with the NSCA.
16. Several intervenors expressed their views about the PNGS in relation to energy policy. The Commission notes that it is the Ontario government that determines Ontario’s

¹⁶ Per the [Class I Nuclear Facilities Regulations](#), an **exclusion zone** means a parcel of land within or surrounding a nuclear facility on which there is no permanent dwelling and over which a licensee has the legal authority to exercise control.

energy policy. Determination of energy policy is not a part of the mandate of the CNSC.

Scope of this Licence Amendment Application and Public Hearing

17. The scope of OPG's licence amendment application and of this public hearing is the amendment of the PNGS operating licence PROL 48.01/2028. It is not to consider the licensed activities at the Pickering Waste Management Facility (PWMF), which is also located on the Pickering nuclear site but is separately licensed under a Class IB Waste Facility Operating Licence.

2.0 DECISION

18. Based on its consideration of this matter, the Commission concludes the following:
- the Commission is satisfied that an impact assessment under the IAA is not required;
 - the contemplated licence amendment does not present any novel adverse impact on any potential or established Aboriginal claim or right;
 - the Commission's responsibility to uphold the honour of the Crown and its constitutional obligations with regard to engagement and consultation respecting Indigenous interests have been satisfied;
 - OPG is qualified to carry on the activities that the amended licence will authorize; and
 - OPG, in carrying out these activities, would 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.

Therefore,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, amends the power reactor operating licence PROL 48.01/2028 issued to Ontario Power Generation Inc. for its Pickering Nuclear Generating Station located in Pickering, Ontario. The amended licence, PROL 48.02/2028, remains valid until August 31, 2028.

Additionally,

the Commission authorizes Ontario Power Generation Inc. to operate the Pickering Nuclear Generating Station Units 5 – 8 to December 31, 2026, up to a maximum of 305,000 equivalent full power hours.

19. The Commission includes in the licence the conditions as recommended by CNSC staff in CMD 24-H5. Specifically, the Commission:

- amends PROL 48.01/2028 to remove licence condition 15.3, Pressure Tube Assessment for Safe Operation:

“Before Hydrogen equivalent concentration exceeds 120 ppm, the licensee shall demonstrate that pressure tube fracture toughness will be sufficient for safe operation beyond 120 ppm.”; and


- amends PROL 48.01/2028 to add new licence condition 6.2, Fitness for Service Program for Fuel Channels in Extended Operation:

“The licensee shall implement and maintain an enhanced fitness for service program for fuel channels in extended operation.”

3.0 CONCLUSION

20. Details of the Commission’s consideration of the information submitted by OPG, CNSC staff, and intervenors in relation to this matter will be presented in a detailed *Record of Decision*, to be published at a later date.

Timothy
Berube

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Berube
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Dr. Timothy Berube
Presiding Member
Canadian Nuclear Safety Commission

Date

Appendix A – List of Intervenors

Intervenors – Oral Presentations	Document Number
CANDU Owners Group, represented by R. Clavero	CMD 24-H5.10
North American Young Generation in Nuclear, represented by M. Maringer	CMD 24-H5.15
Pickering Nuclear Community Advisory Council, represented by D. Hardy and N. Fontana	CMD 24-H5.23
Durham Nuclear Awareness, Slovenian Home Association, and the Canadian Environmental Law Association, represented by S. Libman and M.V. Ramana	CMD 24-H5.29 CMD 24-H5.29A
Ajax-Pickering Board of Trade, represented by A. Leetham and D. Terry	CMD 24-H5.30
Pickering Harbour Company Limited, Frenchman's Bay Harbour & Marine Service Company Limited, represented by D. Spencer	CMD 24-H5.33 CMD 24-H5.33A CMD 24-H5.33B
Canadian Nuclear Society, represented by N. Alexander	CMD 24-H5.34 CMD 24-H5.34A
Paul Sedran, RESD Incorporated	CMD 24-H5.35 CMD 24H5.35A
North American Young Generation in Nuclear – Durham Chapter, represented by V. Sunassy and P. Sambavalingam	CMD 24-H5.38
Nordion (Canada) Inc., represented by R. Wassenaar	CMD 24-H5.39
Kinectrics, represented by S. Donnelly	CMD 24-H5.40 CMD 24-H5.40A
Canadian Nuclear Association, represented by J. Baker	CMD 24-H5.43
Canadian Coalition for Nuclear Responsibility, represented by G. Edwards	CMD 24-H5.44
Sunil Nijhawan	CMD 24-H5.46
Canadians for Nuclear Energy, represented by C. Adlam and J. Besseling	CMD 24-H5.48
Mississaugas of Scugog Island First Nation, represented by Chief K. LaRocca	CMD 24-H5.49 CMD 24-H5.49A
Society of United Professionals, represented by J. Fierro, R. Chatoor and R. Manley	CMD 24-H5.52

Intervenors – Written submissions	Document Number
Greater Oshawa Chamber of Commerce	CMD 24-H5.2
Rotary Clubs of Ajax and Pickering	CMD 24-H5.3
Station Gallery	CMD 24-H5.4
369 Global	CMD 24-H5.5
Town of Ajax	CMD 24-H5.6
Lakeridge Health and the Ajax Pickering Hospital Foundation	CMD 24-H5.7
PineRidge Arts Council	CMD 24-H5.8
Abilities Centre	CMD 24-H5.9

Women in Nuclear Canada	CMD 24-H5.11
Durham College	CMD 24-H5.12
Organization of Canadian Nuclear Industries	CMD 24-H5.13
Earth Rangers	CMD 24-H5.14
Elexicon Energy Inc.	CMD 24-H5.16
Matheis Financial Group	CMD 24-H5.17
Canadian Association of Nuclear Host Communities	CMD 24-H5.18
Durham Region Steps for Life Committee	CMD 24-H5.19
BWXT Canada Ltd.	CMD 24-H5.20
Regional Municipality of Durham	CMD 24-H5.21
Durham Community Foundation	CMD 24-H5.22
Pickering Naturalists	CMD 24-H5.24
Gurley Leadership Solutions	CMD 24-H5.25
City of Pickering	CMD 24-H5.26
Scientists in School	CMD 24-H5.27
Clarity Chiropractic	CMD 24-H5.28
Paul Filteau	CMD 24-H5.31
Janet Graham	CMD 24-H5.32
Métis Nation of Ontario	CMD 24-H5.36
Girls Incorporated of Durham	CMD 24-H5.37
Ontario Tech University	CMD 24-H5.41
Ontario Federation of Anglers and Hunters	CMD 24-H5.42
Northwatch	CMD 24-H5.45
Christine Drimmie	CMD 24-H5.47
Graymatter Marketing and Media Solutions Inc.	CMD 24-H5.50
Whitby Chamber of Commerce	CMD 24-H5.51
Saugeen Ojibway Nation	CMD 24-H5.53 CMD 24-H5.53A
Hiawatha First Nation	CMD 24-H5.54
Curve Lake First Nation	CMD 24-H5.55