

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 8427-DR8PHM
Issue Date: March 16, 2026

Ontario Power Generation Inc.
1 Holt Road South
Clarington, ON L1C 3Z8

Site Location: Darlington New Nuclear Project
1 Holt Road South
Clarington, ON L1C 3Z8

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

establishment of sewage Works for the future collection, transmission, treatment and disposal of once through non-contact condenser cooling water (CCW) at the Darlington New Nuclear Project, operating up to four (4) Small Modular Reactors (SMR) at a design flow of approximately 10.455 cubic metres per second per reactor, consisting of the following proposed Works:

A. COOLING WATER

- one (1) intake structure located on the lake bed at a depth of approximately 11 metres and approximately 1,125 metres from the shore of Lake Ontario, having overall dimensions of approximately 41.5 metres by 41.5 metres, consisting of 72 concrete square modules/openings, each approximately 4 metres by 4 metres, surrounding a 16 metre by 16 metre solid centre module, limiting the average approach intake velocity to approximately 6 centimetres per second, conveying lake water via one (1) intake shaft towards the intake tunnel described below;
- one (1) intake tunnel, with an inside diameter (ID) of approximately 6.05 metres, conveying lake water via one (1) approximately 12.0 metre ID support shaft to the forebay described below, complete with bulkhead separating the intake tunnel from the outfall tunnel;
- one (1) approximately 50.0 metre ID forebay and pumping station, acting as a reservoir for the CCW system, receiving lake water from the intake structure through difference in hydraulic head as well as recirculated non-contact cooling water to prevent formation of frazil ice within the forebay during the winter months by maintaining a minimum forebay temperature of 6°C, complete with travelling screens, pump bays, and electrical equipment rooms, discharging via piping described below to the condenser;

- piping for the collection and discharge of condenser cooling water at each of the up to four (4) SMR units at a design rate of approximately 10.455 cubic metres per second for each unit, discharging via one (1) collection chamber equipped with weir structure followed by one (1) 6.05 metre ID drop shaft to the outfall tunnel described below;
- one (1) outfall tunnel, with an inside diameter (ID) of approximately 6.05 metres, conveying non-contact cooling water to the outfall structure described below, complete with bulkhead separating the outfall tunnel from the intake tunnel;
- one (1) outfall structure located on the lake bed at a depth of approximately 11.3 metres and approximately 600 metres from the shore of Lake Ontario, having an overall diffuser length of approximately 300 metres, with the diffuser consisting of 22 risers each approximately 1 metre in diameter and spaced approximately 14.3 metres on centre, limiting the average exit velocity to approximately 4.2 meters per second, expected to meet or exceed a target dilution of 8:1 to limit the thermal increase to 2 °C above ambient lake temperature at the edge of the mixing zone;

including all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned Works;

all in accordance with the supporting documents listed in Schedule A.

For the purpose of this environmental compliance approval, the following definitions apply:

1. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
2. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
3. "District Manager" means the District Manager of the appropriate local District Office of the Ministry, where the Works are geographically located;
4. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
5. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28;
6. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
7. "Owner" means Ontario Power Generation Inc. and its successors and assignees;
8. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;

9. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
10. "Works" means the approved sewage works, and includes Proposed Works.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. The Owner shall design and construct the Works in accordance with the conditions of this Approval.
3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.
4. The issuance of, and compliance with the conditions of, this Approval does not:
 - a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approval from the local conservation authority necessary to construct or operate the Works; or
 - b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

2. EXPIRY OF APPROVAL

1. This Approval will cease to apply to those parts of the Works which have not been constructed within **five (5) years** of the date of this Approval.
2. In the event that completion and commissioning of any portion of the Works is anticipated to be more than five (5) years, the Owner shall submit an application for extension at least **twelve (12) months** prior to the end of the five (5) years from the day of issuance of this Approval. The application shall include the reason(s) for the delay, whether there is any design change(s) and a review of whether the standards applicable at the time of Approval of the Works are still applicable at the time of request for extension, to ensure the ongoing protection of the environment.

3. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
 - a. change of address of Owner;
 - b. change of Owner, including address of new owner;
 - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act, R.S.O. 1990, c. B.17* shall be included in the notification; or
 - d. change of name of the corporation, and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C39* shall be included in the notification.
2. In the event of any change in ownership of the Works, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

4. CONSTRUCTION OF PROPOSED WORKS

1. Upon the construction of the Works, the Owner shall prepare a statement, certified by a Licensed Engineering Practitioner, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry personnel.
2. Within **one (1) year** of the construction of the Proposed Works, a set of as-built drawings showing the Works “as constructed” shall be prepared. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the Works for the operational life of the Works.

5. FUTURE OPERATION OF THE OF PROPOSED WORKS

1. This Approval shall be limited to permit the construction of the Proposed Works. Prior to the commissioning and operation of the Proposed Works, the Owner shall submit an application to amend this Approval once design details related to the future operation of the CCW system and/or other effluent streams have been finalized and can be made available for review.

6. TEMPORARY EROSION AND SEDIMENT CONTROL

1. The Owner shall install and maintain temporary sediment and erosion control measures during construction and conduct inspections **once every two (2) weeks** and after each significant storm event (a significant storm event is defined as a minimum of 25 millimetres of rain in any 24 hours period). The inspections and maintenance of the temporary sediment and erosion control measures shall continue until they are no longer required and at which time they shall be removed and all disturbed areas reinstated properly.
2. The Owner shall maintain records of inspections and maintenance which shall be made available for inspection by the Ministry, upon request. The record shall include the name of the inspector, date of inspection, and the remedial measures, if any, undertaken to maintain the temporary sediment and erosion control measures.

7. REPORTING

1. The Owner shall, upon request, make all reports, manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
2. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within **fifteen (15) days** of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.
3. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:
 - a. a summary of the construction progress of the Works;
 - b. a description of any problems encountered and corrective actions taken;
 - c. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
 - d. a summary of all spill or abnormal discharge events; and
 - e. any other information the District Manager requires from time to time.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted. This condition is also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. Condition 1.4 is included to emphasize that the issuance of this Approval does not diminish any other statutory and regulatory obligations to which the Owner is subject in the construction, maintenance and operation of the Works. The Condition specifically highlights the need to obtain any necessary conservation authority approvals. The Condition also emphasizes the fact that this Approval doesn't limit the authority of the Ministry to require further information.
2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.
3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
4. Condition 4 is included to ensure that the Works are constructed in accordance with the approval and that record drawings of the Works "as constructed" are maintained for future references.
5. Condition 5 is included to permit construction of the intake and outfall works of the CCW system in phases. The Owner will not be permitted to operate and discharge any effluent until design details of future components of the CCW system and/or other effluents streams have been made available for review through an amendment of this Approval.
6. Condition 6 is included as installation, regular inspection and maintenance of the temporary sediment and erosion control measures is required to mitigate the impact on the downstream receiving watercourse during construction until they are no longer required.
7. Condition 7 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

Schedule A

1. Environmental Compliance Approval Application for Industrial Sewage Works submitted by Ontario Power Generation Inc. dated April 16, 2025 and received on May 30, 2025, and all supporting documentation and information.
2. Design Summary "Darlington New Nuclear Project | Condenser Cooling Water (CCW)" dated August 23, 2024, including engineering drawings, prepared by Black & Veatch Corp.
3. Darlington New Nuclear Project Receiving Water Impact Assessment - Detailed Design, dated January 30, 2025, including calculations and engineering drawings, prepared by W.F. Baird & Associates Coastal Engineers Ltd.

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights*, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

and

The Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

and

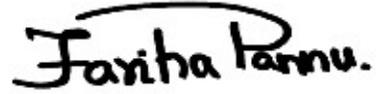
The Director appointed for the purposes of
Part II.1 of the *Environmental Protection Act*
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

This instrument is subject to Section 38 of the *Environmental Bill of Rights*, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 16th day of March, 2026

A handwritten signature in black ink that reads "Fariha Pannu." The signature is written in a cursive style with a large, sweeping initial 'F'.

Fariha Pannu, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

MS/

c: District Manager, MECP York-Durham
Susan Froud, AtkinsRéalis