Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

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STATUS REPORT ON POWER REACTORS

This document summarized the status of the Power Reactor Facilities as of November 18, 2026.

RAPPORT D'ÉTAPE SUR LES CENTRALES NUCLÉAIRES

Ce rapport résume le rapport d'étape sur les centrales nucléaires en date du 18 novembre 2026.

Signed on / Signé le
November 18, 2026 | 18 novembre 2026

Bulkan, Anupama
Digitally signed by Bulkan, Anupama
Date: 2026.11.18 15:15:55 -05'00'

Anupama Bulkan
Acting Director General, Directorate of Power Reactor Regulation
Directrice générale intérimaire, Direction de la réglementation des centrales nucléaires

Canada

1. Power Reactors Status as of November 18, 2026

1.1 Bruce A and B

Operational Status
Unit 1 is Shut Down for a Planned Maintenance Outage
Unit 2 is at Full Power
Unit 3 is at Full Power
Unit 4 is Shut Down for Major Component Replacement (MCR)
Unit 5 is Shut Down for Major Component Replacement (MCR)
Unit 6 is at Full Power
Unit 7 is at Full Power
Unit 8 is at Full Power
Licensing
Power Reactor Operating Licence expires on September 30, 2028. In June 2026, Bruce Power submitted their Notice of Intent to renew the Power Reactor Operating Licence. The application is expected to be submitted in Q1 2027.
Comments
The Unit 4 MCR project started in February 2025 and remains on schedule. • Inspections of the calandria have been completed • Installation of calandria tubes has been completed • Steam generator replacement has been completed • Installation of the fuel channels and upper feeders is in progress The Unit 5 MCR project started in November 2026. • Defuel activities have commenced.
Event Notifications and Updates
None
Actions from previous Commission meetings
None

1.2 Darlington

Operational Status
Unit 1 is at Full Power
Unit 2 is at Full Power
Unit 3 is shut down for a Planned Maintenance Outage
Unit 4 is at Full Power
Licensing
Power Reactor Operating Licence expires on November 30, 2045.

Comments
None
Event Notifications and Updates
On October 29, 2026, OPG requested closure of the 12(2)-request issued on November 6, 2025, following CNSC staff observations during the emergency exercise "Unified Command 2025". During the exercise significant gaps were identified in the deployment and readiness of emergency mitigating equipment (EME), as previously discussed at a Commission proceeding in December 2025 in CMD 25-M38. CNSC staff observed that OPG has made significant improvements to support overall EME deployment readiness in areas such as, drills and exercises, procedures, and training. CNSC staff are satisfied with OPG's actions to address the immediate areas of concern. On September 30, 2026, CNSC staff observed OPG’s Human Factors Validation exercise for portions of the EME guides. This activity was conducted to verify OPG’s capability to deploy EME in the field. CNSC staff were satisfied with the outcome of this exercise. CNSC staff are reviewing OPG's request for closure and will continue regulatory oversight as appropriate.
Actions from previous Commission meetings
On September 2, 2026, OPG provided an update on the Unit 2 and Unit 4 forced outages. OPG committed to conduct root cause analyses (RCAs) for both events. The Commission requested the conclusions from the RCAs be presented at a future Commission meeting. The future update will also include information on the testing frequency and validation methods for the primary heat transport pump control electronics as requested by the Commission. The RCAs are ongoing.

1.3 Pickering

Operational Status
Unit 1 is shut down and transitioning to Safe Storage
Unit 2 is in a Safe Storage State
Unit 3 is in a Safe Storage State
Unit 4 is shut down and transitioning to Safe Storage
Unit 5 is shutdown and defueling is in progress
Unit 6 is shutdown
Unit 7 is shutdown and defueling is in progress
Unit 8 is shutdown and defueling is in progress
Licensing
Power Reactor Operating Licence expires on August 31, 2028. OPG is authorized to operate Units 5-8 until December 31, 2026, up to a maximum of 305,000 equivalent full power hours.

CNSC public hearings concluded October 9th, 2026, on OPG's application to renew the Pickering Nuclear Generating Station and Pickering Waste Management Facility operating licences, and to authorize refurbishment and continued operations of Pickering Units 5-8. On October 20, 2026, the Commission issued a procedural direction to keep the hearing record open until November 19, 2026, and invite additional written submissions from hearing participants on new information added to the public record after the intervention deadline.
Comments
None
Event Notifications and Updates
None
Actions from previous Commission meetings
None

1.4 Point Lepreau

Operational Status
The Unit is at Full Power
Licensing
Power Reactor Operating Licence expires on June 30, 2032.
Comments
On September 11th, due to increasing leakage from the Primary Heat Transport System, the unit was taken offline. Leak searches identified a leak on an instrument line in the east feeder cabinet. The root cause analysis is ongoing. Repairs and extent of condition inspections were completed, and the station was synchronized to the grid on September 26th.
Event Notifications and Updates
None
Actions from previous Commission meetings
The Commission expects to receive an update at a future Commission meeting on the root cause analysis regarding the Point Lepreau NGS shutdown associated with the reheater steam leak. The root cause analysis is ongoing. In 2022, the Commission directed CNSC staff to include relevant progress updates on the moderator replacement project through the Status Reports on Power Reactors. On November 5, 2026, CNSC staff received a letter from NB Power providing a substantial update on the initiative to reduce tritium in the moderator. In this letter, NB Power indicates that "an on-site Tritium Reduction Facility (TRF) represents the safest, most viable and prudent option for achieving moderator tritium reduction objectives." NB Power also indicated that "designing, constructing, commissioning, and placing a TRF into service is not achievable by the September 30, 2028, commitment date" from the periodic safety review (PSR-2) Integrated Implementation Plan (IIP). CNSC staff are assessing the information in this letter to determine implications.

1.5 Darlington New Nuclear Project – Licence to Construct

Construction Status – DNNP-1
Major construction work in progress: • Assembly of the modules for the Steel Composite Containment Vessel (SCCV) Ring 2/3 (which includes the Airlock penetration) (Figures 1-2) is currently underway at the pre-assembly building. Once the modules are assembled, the structure will be placed into the Reactor Building (RB) shaft for fitment and welding to the RB basemat structure • Segments of the Tunnel Boring Machine (TBM) assembly have been lifted into the Circulating Cooling Water (CCW) launch shaft (Figure 3). The commissioning activities of TBM are commencing and excavation activities are planned to start by end of year • Civil construction is on-going for the power block buildings - Turbine Building, Control Building, Service Building, Radioactive Waste Building. Concrete pouring for the grade level foundation slab for the Turbine Building has commenced. (Figure 4)
Licensing
DNNP Power Reactor Construction Licence expires on March 31, 2035.
Comments
Status of OPG's progress toward the regulatory hold points (RHP): • RHP-2: Installation of the Reactor Pressure Vessel (RPV) (OPG current target date is Calendar Q3 2027) o A new licensing regulatory commitment #5.5.14.1 was created for OPG to submit the design information regarding the Nuclear Boiler System and satisfactorily resolve any high significance regulatory comments o This increases the total commitments associated with RHP-2 from 53 to 54 o Commitment status: 54 open, 0 closed, 54 total • RHP-3: Fuel-Out Commissioning (OPG current target date is Calendar Q1 2028) o Commitment status: No change. 8 open, 0 closed. 8 total
Event Notifications and Updates
None
Actions from previous Commission meetings
At the Commission Meeting held on May 27-28, 2026 (CMD 26-M14), the Commission requested an update on the corrective actions taken in response to two stop work orders issued by the Ministry of Labour, Immigration, Training and Skills Development (MLITSD). OPG provided the requested update on September 2, 2026 (CMD 26-M35). CNSC staff reviewed the corrective actions, determined that they were satisfactory, and verified through regulatory oversight activities that the constructor had effectively implemented the prescribed measures. CNSC staff will continue to oversee worker health and safety at the DNNP site.

1.6 Construction activities at the DNNP Site



Figure 1: SCCV Ring 2/3 (includes the Airlock penetration) (Oct. 2026, Source: OPG)

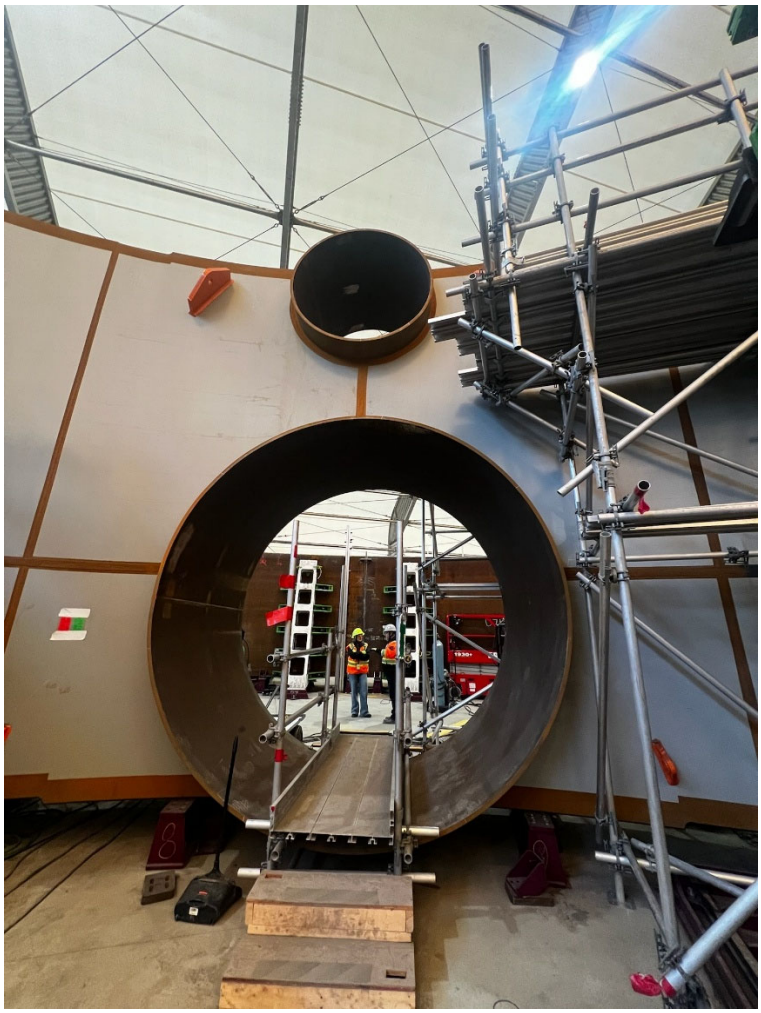


Figure 2: SCCV Ring 2/3 (includes the Airlock penetration) (Oct. 2026, Source: OPG)



Figure 3: Segment of the Tunnel Boring Machine (Oct. 2026, Source: OPG)

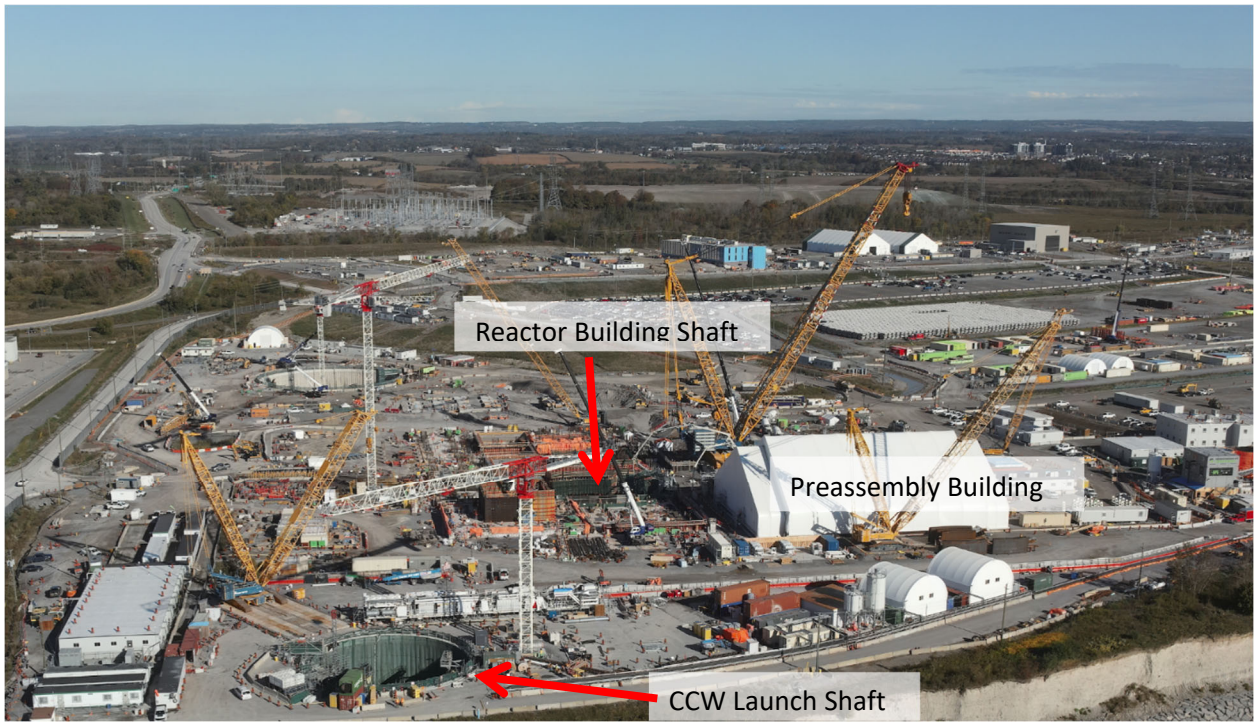


Figure 4: Recent Site Ariel Photograph (Source OPG)