



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

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Status Report on Power Reactors

Rapport d'étape sur les centrales  
nucléaires

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This document summarizes the status of  
the Power Reactor facilities as of  
January 13, 2022.

Ce rapport résume le rapport d'étape sur  
les centrales nucléaires en date du  
13 janvier 2022.

Signed on / Signé le  
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Directeur général, Direction de la réglementation des centrales nucléaires

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**1. Power Reactors Status as of January 13, 2022**

**1.1 Bruce A and B**

<b>Operational Status</b>
Unit 1 is at Full Power.
Unit 2 is at 86.3% of Full Power.
Unit 3 is at Full Power.
Unit 4 is at Full Power.
Unit 5 is at Full Power.
Unit 6 is Shut Down for Major Component Replacement (MCR).
Unit 7 is in a planned maintenance outage.
Unit 8 is at Full Power.
<b>Licensing</b>
Power Reactor Operating Licence expires on September 30, 2028.
<b>Comments</b>
<p>Unit 2 is derated due to vibrations in the turbine steam supply system. The reduction in power precludes the vibrations, such that there are no safety concerns. Bruce Power is working on strategies to eliminate excessive vibrations.</p> <p>Unit 6 Major Component Replacement (MCR) started in January 2020.</p> <ul style="list-style-type: none"> <li>• Installation of feeders and calandria tubes in progress.</li> <li>• Steam Generator (SG) heavy lifts have been completed; installation of new SGs in progress.</li> <li>• Work on inspection and replacement of the primary heat transport system and electrical equipment has been completed.</li> <li>• Moderator and safety system work in progress.</li> </ul> <p>Unit 7 is in a planned maintenance outage that commenced November 5, 2021.</p> <p>Lutetium-177 Isotope Production System (IPS) has been installed in Unit 7. Cold commissioning test of the system is currently under way.</p>
<b>Event Notifications and Updates</b>
Bruce Power and OPG responses to the GNSCR 12(2) request to report on the hydrogen uptake model validity analyses for pressure tubes have been received and are being reviewed by CNSC staff.
<b>Actions from previous Commission meetings</b>
None.

**1.2 Darlington**

<b>Operational Status</b>
Unit 1 is at Full Power.

Unit 2 is at Full Power.
Unit 3 is Shut Down for Refurbishment.
Unit 4 is at Full Power.
<b>Licensing</b>
Power Reactor Operating Licence expires on November 30, 2025.
<b>Comments</b>
Unit 3 refurbishment started in September 2020. <ul style="list-style-type: none"> <li>• Calandria tube installation and upper feeder installation is in progress</li> <li>• Turbine generator static commissioning is in progress.</li> </ul>
<b>Event Notifications and Updates</b>
Bruce Power and OPG responses to the GNSCR 12(2) request to report on the hydrogen uptake model validity analyses for pressure tubes have been received and are being reviewed by CNSC staff.
<b>Actions from previous Commission meetings</b>
None.

### 1.3 Pickering

<b>Operational Status</b>
Unit 1 is at Full Power.
Unit 2 is in a Safe Storage State.
Unit 3 is in a Safe Storage State.
Unit 4 is at Full Power.
Unit 5 is in a planned maintenance outage.
Unit 6 is at Full Power.
Unit 7 is at Full Power
Unit 8 is at Full Power.
<b>Licensing</b>
Power Reactor Operating Licence expires on August 31, 2028. OPG requires Commission approval to operate PNGS beyond December 31, 2024.
<b>Comments</b>
Unit 5 is in a planned maintenance outage that commenced January 4, 2022.
<b>Event Notifications and Updates</b>
Bruce Power and OPG responses to the GNSCR 12(2) request to report on the hydrogen uptake model validity analyses for pressure tubes have been received and are being reviewed by CNSC staff.
<b>Actions from previous Commission meetings</b>
Potassium Iodide (KI) Pill Working Group Update: <ul style="list-style-type: none"> <li>• The Phase I Report will be presented to the Commission in a Public Meeting on January 26-27, 2022.</li> </ul>

Background information on the Working Group can be found on the Working Group webpage:  
<https://nuclearsafety.gc.ca/eng/resources/emergency-management-and-safety/potassium-iodide-pill-working-group.cfm>

**1.4 Point Lepreau**

Operational Status
The unit is at 96.8% of Full Power.
Licensing
Power Reactor Operating Licence expires on June 30, 2022. The licensee applied for renewal of their licence on June 30, 2021.
Comments
The station is returning to Full Power following a maintenance outage.
Event Notifications and Updates
None.
Actions from previous Commission meetings
None.

## 1.5 Other

### **Power Reactor Regulatory Program (PRRP) COVID-19 Activities**

CNSC staff continue their oversight of NPP operations, by carrying out inspections, having access to the licensees Virtual Private Network (VPN), attending meetings remotely and conducting regular surveillance activities. Inspections are being conducted on-site, as well with remote support from subject matter experts. To date CNSC staff have not identified any non-compliances caused by the pandemic and are satisfied with the measures taken by the licensees.

### **Licensee COVID-19 Activities**

#### **Bruce Power**

Bruce Power is reporting one hundred and forty-six (146) active COVID-19 cases. There has been no impact on minimum shift complement or the safe operation of the units from positive COVID-19 cases.

#### **Ontario Power Generation**

To date four hundred and fifty-nine (459) OPG Darlington workers (employee and contract) have tested positive for COVID-19. Two hundred and seventy-eight (278) of these cases are considered recovered with one hundred and eighty-one (181) remaining active. There has been no impact on minimum shift complement or the safe operation of the units resulting from positive COVID-19 cases.

To date four hundred and sixty-nine (469) OPG Pickering workers (employee and contract) have tested positive for COVID-19. Three hundred and ninety-six (396) of these cases are considered recovered with seventy-three (73) remaining active. There has been no impact on minimum shift complement or the safe operation of the units resulting from positive COVID-19 cases.

#### **Point Lepreau**

To date, there have been sixty-seven (67) positive cases at Point Lepreau NGS. Fifty-one (51) of these cases are considered recovered with sixteen (16) remaining active. There was one (1) instance which had an impact on minimum shift complement. There has been no impact on the safe operation of the units resulting from positive COVID-19 cases.