



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

CMD 21-M41
File/Dossier # 6.02.04
e-Doc 6651529 (PDF)

Status Report on Power Reactors

Rapport d'étape sur les centrales
nucléaires

This document summarizes the status of
the Power Reactor facilities as of
September 23, 2021.

Ce rapport résume le rapport d'étape sur
les centrales nucléaires en date du
23 septembre 2021.

Signed on / Signé le
2021-09-29

Digitally signed by Viktorov, Alexandre
DN: C=CA, O=GC, OU=CNSC-CCSN, CN="Viktorov,
Alexandre"
Reason: I am approving this document
Location: your signing location here
Date: 2021-09-29 17:21:02
Foxit PhantomPDF Version: 9.7.1

Alexandre Viktorov, Ph.D.
Director General, Directorate of Power Reactor Regulation
Directeur général, Direction de la réglementation des centrales nucléaires

This page intentionally left blank

1. Power Reactors Status as of September 23, 2021

1.1 Bruce A and B

Operational Status
Unit 1 is at Full Power.
Unit 2 is at Full Power.
Unit 3 is in a planned maintenance outage
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 at Full Power.
Unit 8 is at Full Power.
Licensing
Power Reactor Operating Licence expires on September 30, 2028.
Comments
Unit 3 is in a planned maintenance outage that commenced March 25, 2021.
Unit 6 Major Component Replacement (MCR) started in January 2020. Bruce Power has removed the feeders, end fittings, pressure tubes and calandria tubes. Bruce Power is currently preparing for the installation of new calandria tubes. Replacement of steam generators is on-going. Work on inspection and replacement of the primary heat transport system equipment has finished and electrical work is in progress. Moderator and safety system work is scheduled to take place later this calendar year.
Event Notifications and Updates
On July 16, 2021, CNSC staff submitted to the Commission, an Event Initial Report (CMD 21-M39) on Bruce A Unit 3 and Bruce B Unit 6 Hydrogen Equivalent Concentration ([H]eq) in Pressure Tubes licence limit exceedance. A Designated Officer order was subsequently issued requiring licensees to seek the Commission approval for restart of units in extended operation, following an outage. The Commission held a meeting, on September 3 rd to receive an update on the subject. On September 10 th , a Commission hearing took place to provide an opportunity to be heard to the affected licensees. In its decision (DEC 21-H11), the Commission confirmed the orders for Bruce NGS A and B, and Darlington NGS, and amended the order for Pickering NGS to remove Units 1 and 4. The Commission did not pre-authorize the restart of any reactor unit and would consider requests to restart on a case-by-base basis following a request by a licensee. On September 17, 2021, Bruce Power requested the Commission for an authorization to return Unit 3 to service following the current planned outage and provided additional information related to the elevated [H]eq. As of the writing of this CMD, CNSC staff are working on a CMD, to be submitted to the Commission on October 1, 2021, for their consideration regarding restart approval for Unit 3.
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 Refurbishment.
Unit 4 is at Full Power.
Licensing
Power Reactor Operating Licence expires on November 30, 2025.
Comments
Unit 3 refurbishment started in September 2020. Calandria and pressure tube removal began September 14, 2021.
Unit 4 is scheduled to start a planned outage on October 1, 2021.
Event Notifications and Updates
None
Actions from previous Commission meetings
None.

1.3 Pickering

Operational Status
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 at Full Power.
Unit 6 is at 78% of Full Power
Unit 7 is in a planned maintenance outage.
Unit 8 is at Full Power.
Licensing
Power Reactor Operating Licence expires on August 31, 2028. OPG requires Commission approval to operate PNGS beyond December 31, 2024.
Comments
Unit 6 is at 78% of Full Power due to a fuelling deficit, caused by fueling machine unavailability. The target date for return to Full Power is to be determined.
Unit 7 is in a planned maintenance outage that commenced September 10, 2021.
Event Notifications and Updates

None.
Actions from previous Commission meetings
<p>Potassium Iodide (KI) Pill Working Group Update:</p> <ul style="list-style-type: none"> • The 90-day public review period of the draft Phase I report ended on July 6, 2021, with 17 comments submitted on the report. • The CNSC will be conducting a virtual workshop with the Advisory Committee to seek feedback on the report and discuss comments submitted during the public review (anticipated in October 2021). • The Working Group will disposition all comments received during the public review period, as well as comments received during the Advisory Committee virtual workshop, and revise the report, as appropriate. • The Phase I Report is anticipated to be presented to the Commission before the end of 2021. <p>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</p>

1.4 Point Lepreau

Operational Status
The unit is at Full Power.
Licensing
Power Reactor Operating Licence expires on June 30, 2022.
Comments
None.
Event Notifications and Updates
None.
Actions from previous Commission meetings
None.

1.5 Other

Power Reactor Regulatory Program (PRRP) COVID-19 Activities

Compliance

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.

Licensing

DPRR continues to conduct and support licensing activities following established practices for Canadian NPPs in a timely and efficient manner, while respecting the needs of all stakeholders and adjusting to pandemic circumstances (e.g., working from home). Currently, CNSC staff is evaluating a request by New Brunswick Power for the Power Reactor Operating Licence renewal.

International Collaboration

The 9th review cycle for the Convention on Nuclear Safety has begun, with Canada holding a writing team kick-off meeting on September 21 involving members of the CNSC, Health Canada, Natural Resources Canada, Global Affairs Canada, Bruce Power, Ontario Power Generation, New Brunswick Power, Global First Power and SNC-Lavalin. An Organizational Meeting for all signatory countries involved in the current review cycle is scheduled to be held in Vienna on October 20, 2021 with in-person and virtual attendance possible.

Licensee COVID-19 Activities

Business Continuity Plan Status

All licensees have active business continuity plans (BCP). Licensees maintain appropriate protocols for responding to positive test results for their workers and report to CNSC regularly. CNSC staff are monitoring and evaluating licensees' COVID-19 responses and are satisfied with the current provisions.

Bruce Power

To date one hundred fifty-five (155) Bruce Power workers (employee and contract) have tested positive for COVID-19. One hundred fifty-four (154) of these cases are considered recovered with one (1) remaining active. 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 one hundred twenty-three (123) OPG Darlington workers (employee and contract) have tested positive for COVID-19. One hundred eighteen (118) of these cases are considered recovered with five (5) 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 one hundred twenty (120) OPG Pickering workers (employee and contract) have tested positive for COVID-19. One hundred seventeen (117) of these cases are considered recovered with three (3) remaining active.

Between August 25 and 26, 2021, four OPG PNGS contractors working on the second floor of the Records and Drawing Office and the first floor of the Administration Building in the renovation area, tested positive for COVID-19. On August 29, 2021, Durham Region Health Department declared this an outbreak. Durham Region Health Department declared this COVID-19 outbreak over on September 10, 2021.

There has been no impact on minimum shift complement or the safe operation of the units resulting from positive COVID-19 cases.

Point Lepreau

There have been no new COVID-19 cases identified at site since the last update. To date, there have been two (2) positive cases at Point Lepreau NGS. All of these cases are considered recovered. There has been no impact on minimum shift complement on the safe operation of the units resulting from positive COVID-19 cases.

Reporting of COVID-19 Cases to CNSC

On December 10, 2020 the Directorate of Power Reactor Regulation issued clarifications to promote consistent reporting of COVID-19 cases:

1. Formal event reports, in accordance with REGDOC-3.1.1, *Reporting Requirements for Nuclear Power Plants* are to be submitted for situations:
 - where a person who had entered the protected area was later found to be COVID-19 positive, leading to isolation measures being imposed in case the virus had been transmitted to others
 - any impact, attributed to COVID-19, on the Minimum Shift Complement (MSC) positions outlined in the respective Licence Condition Handbooks
2. For all other COVID-19 related events, not having operational or safety impacts, courtesy informal notification will continue to be made to the Regulatory Program Directors.

The following represent cases reported to the CNSC under the clarified reporting requirements of REGDOC-3.1.1. These cases occurred after December 10, 2020:

Bruce Power

Bruce Power has reported four (4) cases. There has been no evidence of workplace transmission of COVID-19 and no impact on minimum shift complement or the safe operation of the units resulting from positive COVID-19 cases. CNSC staff are satisfied with the response and protective measures taken by Bruce Power.

Ontario Power Generation

OPG Darlington has reported thirteen (13) cases. There has been no impact on minimum shift complement or the safe operation of the units resulting from positive COVID-19 cases. CNSC staff are satisfied with the response and protective measures taken by OPG Darlington.

OPG Pickering has reported fourteen (14) cases. There has been no impact on minimum shift complement or the safe operation of the units resulting from positive COVID-19 cases. CNSC staff are satisfied with the response and protective measures taken by OPG Pickering.

New Brunswick Power

There have been zero reportable cases.