



CMD 19-M14
File/Dossier # 6.02.04
e-Doc 5899713 PDF

Status Report on Power Reactors

Rapport d'étape sur les centrales
nucléaires

Commission Meeting
May 15, 2019

Réunion de la Commission
le 15 mai 2019

This document summarizes the status
of the Power Reactor facilities as of
May 9th, 2019.

Ce rapport résume le rapport d'étape
sur les centrales nucléaires en date du
9 mai 2019.

Signed on / Signé le
2019-05-13



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Directeur général par intérim, Direction de la réglementation des centrales nucléaires

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1. Power Reactors Status as of May 9, 2019

1.1 Bruce A and B

Operational Status
Unit 1 is at Full Power
Unit 2 is Shutdown
Unit 3 is Shutdown
Unit 4 is at Full Power
Unit 5 is at Full Power
Unit 6 is Shutdown
Unit 7 is Shutdown
Unit 8 is at Full Power
Licensing
Power Reactor Operating Licence expires on August 31, 2028.
Comments
<p>Unit 2 was safely shutdown on May 7, 2019 following a partial loss of Class II Power. Class II Power provides power for instrumentation and control. The loss of Class II Power initially resulted in a Unit stepback to 59% Full Power as per design. When the problem recurred the operators took a conservative decision and manually shutdown the reactor. Bruce Power is currently performing a post-transient review, as well as follow-up investigation to determine the cause of the initiating event. The event did not result in an impact to the safety of the public and the environment.</p> <p>Unit 3 is in a planned maintenance outage. The outage was extended to replace a pressure tube. The unit is expected to return to service in May 2019.</p> <p>Unit 6 is in a planned maintenance outage to perform pressure tube inspections. The unit is expected to return to service in May 2019.</p> <p>Unit 7 is in a planned maintenance outage. The unit is expected to return to service in May 2019.</p>
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 Shutdown for Refurbishment
Unit 3 is at Full Power
Unit 4 is at Full Power
Licensing
Power Reactor Operating Licence expires on November 30, 2025.
Comments
<p><u>Unit 2 Refurbishment Project Update:</u></p> <p>Fuel channel installation was completed on April 12, 2019. Moderator refill began April 13 and was completed April 15, 2019. Completion of feeder installation is the current focus of the project.</p> <p>On May 7th OPG submitted the Completion Assurance Document for the removal of Regulatory Hold Point 1 - Fuel Load. Decision regarding removal of Regulatory Hold Point 1 is scheduled for July 16, 2019.</p>
Event Notifications and Updates
None.
Actions from previous Commission meetings
<p><u>Update to the November 2018 Alpha Event</u></p> <p>On November 29, 2018, OPG informed CNSC staff that 2 Personal Air Samplers (PAS) worn by contractors working on Unit 2 feeder replacement were found to contain low levels of radioactive particulates, including alpha emitters. The workers were wearing half-mask negative pressure particulate respirators at the time. OPG immediately mandated that all work in the feeder cabinets be conducted in plastic suits. Subsequently, OPG identified 7 instances for which PAS showed a positive result for alpha emitters. OPG’s investigation found that the source of the activity was due to removal of foreign material from inside the header.</p> <p>On December 13, 2018, CNSC staff issued a 12(2) request for OPG to initiate follow-up dose assessment activities using in vitro bioassay methods for all individuals whose PAS showed positive results, and to review and modify its alpha dosimetry program in light of the elevated risks of alpha hazards associated with refurbishment and in consideration of recent OPEX.</p> <p>On January 31, 2019, OPG provided an interim response to the CNSC 12(2) request that confirmed that 7 individuals had submitted fecal samples for in-vitro analysis. All samples were analyzed by an approved vendor. For one worker, one alpha isotope of interest was above the detection limit and a dose assessment was undertaken. The results for the remaining 6 individuals were below the detection limit, and no internal dose was assigned to these individuals.</p> <p>On March 29, 2019, OPG fully complied with the 12(2) request and submitted to the CNSC:</p> <ul style="list-style-type: none"> • The results of the dose assessment for the one worker with a positive bioassay result • The results of its review of its alpha dosimetry program. <p>OPG’s dose assessment concludes that one worker received a committed effective dose of 0.19 mSv (primarily due to the presence of 244Cm), well below the regulatory dose limit (i.e. 50 mSv/y) and the licensee’s action level (i.e. 2 mSv above planned). A CNSC dosimetry specialist has reviewed and accepted OPG’s dose assessment.</p>

CNSC staff have also evaluated OPG's review of its alpha dosimetry program and conclude that OPG has complied with the CNSC 12(2) request, and has initiated appropriate revisions to its program. CNSC staff have raised an action item to track OPG's program improvements to completion, including the implementation of a confirmatory alpha dosimetry program.

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 Full Power
Unit 7 is Shutdown
Unit 8 is at Full Power
Licensing
Power Reactor Operating License expires on August 31, 2028.
Comments
Unit 7 is currently shut down for a planned maintenance outage. Return to service is planned for May.
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"> • All comments received during the public review period (December 24, 2018 to February 14, 2019) have been dispositioned by the anticipated signatories to the Terms of Reference. (OPG, Ministry of Health and Long-Term Care, Office of the Fire Marshall and Emergency Management). • The Terms of Reference were revised based on comments received from the public review period and the detailed Record of Decision for the renewal of the Pickering operating licence released on January 3, 2019. • The revised Terms of Reference have been reviewed and approved by all signatories. • The Terms of Reference began circulation for signatures on May 2, 2019 and CNSC staff expect to have all signatures by May 17, 2019; officially enacting the working group. <p>Upon enacting the Working Group, a workshop with all Working Group members will be held to begin work on Phase I as defined in the Terms of Reference. The workshop is anticipated to be held in the second quarter of this fiscal year.</p>

1.4 Point Lepreau

Operational Status
PLNGS is in the process of returning to service from a planned maintenance outage. Reactor Power is currently at 50%.
Licensing

Power Reactor Operating Licence expires on June 30, 2022.
Comments
On May 8, a field operator tripped outside of the equipment airlock and fractured a patella. WorkSafeNB is on site investigating and advising CNSC staff.
On May 9, while at 55%, a steam leak was discovered on a gasket for the high pressure turbine. The turbine was taken off line and the power was reduced to 50%. NB Power is preparing to effect repairs. The event did not result in an impact to the safety of the workers, public, and the environment.
Event Notifications and Updates
None.
Actions from previous Commission meetings
None.

1.5 Other

Nothing to report.