



Minutes of the Canadian Nuclear Safety
Commission (CNSC) Meeting held on
December 12, 2025

Minutes of the virtual Canadian Nuclear Safety Commission (CNSC) meeting held on Friday December 12, 2025, beginning at 8:30 am (CT) / 9:30 am (ET). The meeting was webcast live via the CNSC website, and video archives are available on the [CNSC website](#).

Present:

P. Tremblay, President

T. Berube

A. Hardie

J. Hopwood

M. Lacroix

V. Remenda

J. Samson, Deputy Commission Registrar

A. Mazur, Commission Counsel

T. Najem, Recording Secretary

CNSC staff advisors: A. Viktorov, S. Eaton, N. Greencorn, D. Hipson, T. Gulinski, R. Tenant, E. Janzen and A. McAllister

Other contributors:

- New Brunswick Power: N. Reicker
- Bruce Power: M. Burton and T. Beck
- Ontario Power Generation Inc.: S. Sharma, S. Irvine, S. Gregoris, A. Grace, S. Preston and K. Carew
- Best Theratronics: M. Xu and M Subramanian
- Canadian Nuclear Laboratories: J. Osborne, M. Vickerd, N. Astbury and P. Kompass

Constitution

1. With the Notice of Meeting, Commission Member Document (CMD) [25-M36](#), being properly given and all Commission Members present, the meeting was properly constituted.
2. For the meeting, [CMD 25-M38](#) and [CMD 25-M39](#) were distributed to Commission Members. These documents are further detailed in [Appendix A](#).

Adoption of the Agenda

3. The revised agenda, [CMD 25-M36.A](#), was adopted as presented.

Chair and Registrar

4. President Tremblay chaired the meeting of the Commission, assisted by J. Samson, Deputy Commission Registrar.

Minutes of Previous Commission Meeting

5. The [minutes](#) of the Commission meeting held on October 7, 2025, were approved secretarially in advance of this meeting.

Participant Funding Program

There was no participant funding for this meeting.

Status Report on Power Reactors

6. With reference to [CMD 25-M38](#), which included the status of the power reactor facilities as of November 10, 2025, CNSC staff presented the following additional updates:
 - For the Pickering Nuclear Generating Station (NGS):
 - Unit 6 returned to service after a planned outage and was progressing to full power

- For the Point Lepreau NGS:
 - on November 29, 2025, following restart and grid synchronization, a turbine was manually tripped;¹ the NGS was currently proceeding through run-up activities following the completion of repairs
- For hydrogen equivalent concentration ([Heq])² Research and Development (R&D):
 - CNSC staff completed review of research update #6 activities; all activities targeted for completion this year were completed to CNSC staff's satisfaction
 - a typographical error was noted in the status of the R&D activities;³ the final comprehensive Heq model is progressing as planned and is on track to be completed by end of April 2026

7. Representatives from Ontario Power Generation Inc. (OPG), Bruce Power, and New Brunswick (NB) Power provided verbal remarks to the Commission.

8. An OPG representative provided information concerning a [request to OPG from CNSC staff](#), pursuant to subsection 12(2) of the [General Nuclear Safety and Control Regulations](#),⁴ resulting from its inspection of OPG's full-scale emergency exercise "Unified Command 2025."⁵ The OPG representative described OPG's performance during the exercise, as well as the deficiencies in deploying emergency mitigating equipment (EME) at the Darlington NGS. The OPG representative also provided information on the corrective actions taken and stated that OPG would focus on EME and pursue program improvements in 2026.

9. A Bruce Power representative reported that Bruce A Unit 2 was expected to return from a planned maintenance outage on December 15, 2025. The representative added that Bruce Power had completed the pressure tube sever activity for the ongoing Unit 4 Major Component Replacement project.

¹ The trip was due to high differential expansion on low-pressure turbine #2 and an identified bearing issue.

² Hydrogen equivalent (Heq) concentration ([Heq]) is the concentration of hydrogen by weight that would be present in a pressure tube if the deuterium atoms were replaced by hydrogen atoms. [Heq] is expressed in parts per million (ppm) by weight.

³ CNSC staff had reported they would "Develop the final comprehensive Heq model" by Winter 2026: CMD 25-M38, section 1.6.

⁴ SOR/2000-202.

⁵ CNSC staff issued the request on November 6, 2025, as described in CMD 25-M38, page 3.

10. An NB Power representative explained the turbine trip event, what was found during the bearing inspection and repair, and how the restart was progressing step by step toward full power.

Discussion

11. The Commission requested additional information concerning OPG's performance respecting the deployment of EME during the exercise, including on the following topics:
 - the availability of Portable Uninterruptable Power Supplies (PUPS) and their maintenance
 - the frequency and scope of OPG's emergency exercises
 - OPG's compliance history regarding EME
 - OPG's consideration of multi-station emergency scenarios
 - lack of workers' proficiency in deployment, operation, and connection of EME⁶
 - industry sharing of operating experience (OPEX)
12. OPG representatives provided the following in response to the Commission's questions:
 - OPG had identified degraded, beyond-design-life PUPS batteries and implemented an interim redundancy solution using units transferred from the Pickering NGS; delivery timelines for replacement PUPS were expected within a month
 - OPG conducts annual evaluated drills and regular non-evaluated crew practice sessions
 - decisions on which EME deployments to simulate or conduct in the field are made through an internal review cycle
 - previous EME deployments in drills/exercises revealed opportunities for improvement
 - in response to the deficiencies in deploying EME, a detailed root-cause evaluation was underway and would be shared with CNSC staff
 - OPG maintains dedicated EME at both the Pickering NGS and Darlington NGS, with sufficient redundant shared equipment to respond independently and simultaneously in a multi-station scenario
 - lessons learned from the Darlington NGS were being applied to the Pickering NGS through worker involvement, procedure updates, equipment verification, and upcoming drills

⁶ CMD 25-M38, page 3.

- OPG had corrected procedure nomenclature and alignment issues across all EME procedures
- OPG enhanced staff proficiency through detailed procedure reviews and hands-on learning, with increased training frequency and drill depth planned
- in a beyond-design-basis event, full station staffing would be mobilized to support EME operation

13. CNSC staff provided the following in response to the Commission's questions:

- OPG's detailed response to the subsection 12(2) request was expected to be submitted for CNSC staff review by December 19, 2025
- an October 2025 exercise revealed procedural and training gaps during Phase 2 EME validation, while a full-scale Darlington exercise in 2022 showed no comparable EME deficiencies
- licensees are required to share OPEX
- CNSC staff will observe an upcoming drill at the Pickering NGS in January 2026
- multi-unit exercises are conducted within a single NGS, but multi-site scenarios are not currently exercised, though resource-sharing plans exist
- CNSC staff observed worker unfamiliarity with equipment

14. Regarding industry sharing of OPEX, an OPG representative stated that OPG had shared the OPEX from the EME drill with industry peers. Representatives from Bruce Power and NB Power confirmed that their respective organizations had taken actions to address the OPEX.

15. The Commission emphasized the importance of public confidence in the licensees' ability to deploy EME in an emergency and sought assurance that deficiencies would be addressed. An OPG representative affirmed that OPG was committed to short-term corrective actions and longer-term programmatic changes. CNSC staff added that it would conduct regulatory oversight of exercises with particular attention to EME deployment and, as necessary, request drills/exercises to demonstrate worker proficiency and equipment availability.

16. With respect to the turbine trip at the Point Lepreau NGS, the Commission asked for more information on the facility's shut-down sequence. An NB Power representative responded that:
 - a turbine was manually tripped at approximately 35% reactor power due to indications of thermal expansion; reactor power was reduced from 35% to 2% via the reactor regulating system, and shutdown system 1 (SDS-1) was applied approximately 12 hours later to transition to guaranteed shutdown for inspection and maintenance
 - shutting down using SDS-1 is a normal established process to place the unit in a guaranteed shutdown state
17. The Commission asked for additional information concerning the corrosion and fouling issue found in Bruce A Unit 2's generator.⁷ A Bruce Power representative reported that corrosion fouling in Unit 2's stator bars was traced to a missing orifice from a 2016 rewind. The Bruce Power representative added that the cooling system had since been restored to design specification. The Bruce Power representative also stated that, although Unit 4 shares the same stator core, preliminary inspections show no corrosion ahead of its full generator inspection planned for 2027. CNSC staff stated that it was satisfied that Bruce Power had understood the issue and would continue to examine it as appropriate.
18. The Commission directs OPG to provide an update on the root cause of OPG's deficiencies in the EME deployment during the drill exercise. The Commission also expects CNSC staff to provide an update on its oversight of OPG's corrective actions, including whether OPG's measures have adequately addressed any common causes. Both updates are to be presented at a future Commission meeting.
19. The Commission is satisfied with the information provided by CNSC staff and licensees regarding this item.

ACTION
by
March
2026

⁷ On September 20, 2025, Unit 2 was shutdown for a planned maintenance outage. The outage scope was increased to partially rewind the Generator Stator and perform chemical cleaning of the Stator Cooling Water system. The projected outage completion date is December 15, 2025: CMD 25-M38, page 2.

UPDATE ON ITEMS FROM PREVIOUS COMMISSION PROCEEDINGS

Update from CNSC staff on the Compliance Verification Criteria (CVC) under Licence Conditions 11.1 and 15.4 in the Darlington New Nuclear Project (DNNP) Licence to Construct Licence Conditions Handbook (CMD 25-M39)

20. In its *Record of Decision*, [DEC 24-H3](#),⁸ the Commission directed CNSC staff to provide an update on the DNNP CVC for Licence Conditions (LCs) 15.4 and 11.1 as outlined in paragraphs 19 and 491. CNSC staff's submission included the following information:

- update on engagement with Michi Saagiig Nations (MSN) on the CVC for LC 15.4⁹
- update on engagement with Saugeen Ojibway Nation (SON) on the CVC for LC 11.1¹⁰

Discussion

21. The Commission asked for additional information about the following topics:

- CNSC staff's expectations for continued engagement with MSN
- the implementation of a Cumulative Effects Assessment (CEA)¹¹
- the means to provide oversight of meaningful collaboration

22. Regarding future engagement with MSN, CNSC staff stated that engagement continues via regular monthly meetings, with flexibility for trilateral meetings with OPG. CNSC staff noted that meeting agendas are tailored to the MSN's interests, including commitments arising from recent decisions. CNSC staff added that the removal of the working group would not change the scope or substance of discussions. An OPG representative stated that OPG supports MSN's preferences for direct relationships and affirmed continued tripartite engagement when requested.

⁸ *Record of Decision* in the Matter of Ontario Power Generation's Application for a Licence to Construct one BWRX-300 Reactor at the Darlington New Nuclear Project Site.

⁹ Based on MSN feedback and clarification, CNSC staff have removed the requirement for OPG to participate in the proposed working group for monitoring and oversight and will not be proceeding with this working group initiative.

¹⁰ CNSC staff updated the CVC based on SON's feedback that the CVC clearly reflect OPG's commitment to store all DNNP waste onsite and SON's preference to not have the wastes managed or stored at OPG's Western Waste Management Facility, which is located in SON's territory.

¹¹ The CEA is identified as one of the specific commitments and accommodations in the CVC under licence condition 15.4.

23. Concerning the implementation of a CEA, CNSC staff stated that the MSN would lead the study, however, work is currently paused due to capacity. An OPG representative added that OPG had committed to provide funding towards an Indigenous-led study to inform the CEA, and that the data would remain the MSN's intellectual property.
24. Regarding oversight of meaningful collaboration, CNSC staff described its regular participation in meetings, bringing appropriate leadership and experts, and OPG's requirement to submit annual Indigenous Engagement Reports as outlined under LC 15.4, which CNSC staff would review and discuss with Nations. An OPG representative reiterated OPG's openness to CNSC staff participating in meetings at the MSN's request.
25. The Commission is satisfied with the information provided by CNSC staff and OPG regarding this item.

INFORMATION ITEMS

Verbal update from CNSC staff regarding Best Theratronics Ltd. (BTL)

26. CNSC staff provided a verbal update regarding BTL, which is currently subject to an order due to its failure to maintain an acceptable financial guarantee. CNSC staff highlighted BTL's progress in meeting the requirements set out in the *Record of Decision, DEC 25-H118*.¹² CNSC staff noted that, with the exception of one briefly missed deadline, BTL was on track to complete the objectives in accordance with the order. CNSC staff added that it would continue to provide oversight regarding the remaining items.

Discussion

27. BTL representatives confirmed BTL's intent to work closely with CNSC staff and submit reports on time. The Commission was satisfied with BTL's progress.
28. The Commission expects CNSC staff to provide an update regarding BTL's continued progress in addressing the deliverables outlined in DEC 25-H118. The update is to be presented at a future Commission meeting.

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| | <u>ACTION</u> by March 2026 |
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¹² *Record of Decision* in the Matter of a Redetermination of the Commission's February 14, 2025 Amendment to Designated Officer Order 7396415.

Verbal update from CNSC staff regarding contaminated sewage leaving the Canadian Nuclear Laboratories (CNL) site

29. CNSC staff provided a verbal update to the Commission, including the following information:
 - CNL unintentionally released contaminated material from Chalk River Laboratories (CRL) to the Deep River sewage landfill during maintenance; although initial surveys had shown no contamination, follow-up checks identified localized contamination
 - the contamination was promptly contained and fully remediated under CNSC oversight
 - CNL proactively informed local towns, Indigenous Nations, and officials; submitted a preliminary report to CNSC; and is required to provide a full event report by December 17, 2025
 - there was no risk to the public or the environment from this incident
30. A CNL representative provided an update regarding this item, describing CNL's immediate response to the event and corrective actions. The CNL representative emphasized that CNL accepts full responsibility for the incident, and acknowledged concerns raised by rights holders and interest holders. The CNL representative stated that CNL was confident that the situation was managed appropriately, and that the corrective measures would prevent recurrence and fully address identified deficiencies.

Discussion

31. The Commission sought additional information concerning this item, including on the following topics:
 - potential past occurrences of off-site contamination
 - the source of the radioactive material in the waste
 - the management and fate of the contaminated sludge
 - the extent of radiological surveys performed at the Deep River landfill
 - worker dose and radiation protection
 - communication with the public, and Indigenous Nations and communities

32. CNL representatives provided the following responses to the Commission:

- the offsite sewage shipment was a non-routine activity
- an outline of the site's standard onsite sewage treatment pathways, and a description of the legacy characteristics associated with the affected sewage line
- the radioactive contaminants that were identified were cobalt-60 and cesium-137; the contamination originated from legacy, historical material within the old sewage system, consistent with past operations at Chalk River Laboratories
- the recovered material was stored at a CRL waste management area; based on composite sampling, contamination was very low; and potential future disposition to the Near Surface Disposal Facility¹³ (NSDF) is contingent on meeting the facility's waste acceptance criteria
- extensive surveys, including use of robots, were conducted at the landfill to confirm the extent of the contamination
- workers used radiation protection measures and doses were very low

33. Regarding communication with the public and Indigenous Nations and communities, CNL representatives stated that CNL reported early disclosures via its website and proactive outreach to the Town of Deep River and Laurentian Hills, the Environmental Stewardship Council, and Indigenous Nations and organizations. CNSC staff added that it monitored for public concerns and attended CNL's Environmental Stewardship Council; no concerns were noted during that session, and any next steps would depend on the information provided in CNL's final event report.

34. The Commission is satisfied with the information provided by CNSC staff and CNL regarding this item.

35. The Commission directs CNL to provide an update on the root cause of the off-site contamination. The Commission also expects CNSC staff to provide an update on its oversight of CNL's corrective actions, including whether CNL's measures have adequately addressed any common causes. Both updates are to be presented at a future Commission meeting.

ACTION
by
May 2026

¹³ The NSDF at the CRL site is to be built for the purpose of disposing of low-level radioactive waste. The design of the NSDF Project includes an engineered containment mound, a wastewater treatment plant, and other support facilities. The Commission has authorized the construction of the NSDF Project; however, the decision is being reviewed by the courts. Authorization to operate the NSDF would be subject to a future Commission licensing hearing and decision, should CNL come forward with a licence application to do so.

Closure of the Public Meeting

36. The public meeting closed at 10:45 am (CT) / 11:45 am (ET) on December 12, 2025. These minutes reflect both the public meeting itself and the Commission's considerations following the meeting.

Recording Secretary

Date

Deputy Commission Registrar

Date

APPENDIX A

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| | | |
| 25-M36 | 2025-11-05 | DAMZHJW66V33-166150894-8569 |
| Notice of Meeting of the Commission on December 12, 2025 | | |
| 25-M36 | 2025-11-27 | DAMZHJW66V33-166150894-8900 |
| Agenda of the virtual meeting of the Canadian Nuclear Safety Commission (CNSC) to be held on December 12, 2025, at 612 Spadina Crescent East, Saskatoon, Saskatchewan | | |
| 25-M36.A | 2025-12-04 | DAMZHJW66V33-166150894-8732 |
| Revised agenda of the virtual meeting of the Canadian Nuclear Safety Commission (CNSC) to be held on December 12, 2025, at 612 Spadina Crescent East, Saskatoon, Saskatchewan | | |
| 25-M38 | 2025-11-19 | English: DAMZHJW66V33-166150894-8890 French: DAMZHJW66V33-166150894-8891 |
| Status Report | | |
| Status Report on Power Reactors | | |
| Written submission from CNSC Staff | | |
| 25-M39 | 2025-11-18 | English: DAMZHJW66V33-166150894-8785 French: DAMZHJW66V33-166150894-8792 |
| Information Item | | |
| Update from CNSC staff on the Compliance Verification Criteria under Licence Conditions 11.1 and 15.4 that are part of the Licence Conditions Handbook for the Darlington New Nuclear Project's Licence to Construct | | |
| Written submission from CNSC Staff | | |
| N/A | 2025-12-12 | N/A |
| Information Item | | |
| Update from CNSC Staff regarding Best Theratronics Limited | | |
| Verbal update from CNSC Staff | | |
| N/A | 2025-12-12 | N/A |
| Information Item | | |
| Update from CNSC Staff: Contaminated Sewage Leaves the CNL Site | | |
| Verbal update from CNSC Staff | | |