



Minutes of the Canadian Nuclear Safety  
Commission (CNSC) Meeting held on  
November 7, 2024

Minutes of the hybrid Canadian Nuclear Safety Commission (CNSC) meeting held on Thursday, November 7, 2024, beginning at 9:36 am EST. The meeting was webcast live via the CNSC website, and video archives are available on the [CNSC website](#).

Present:

P. Tremblay, President  
T. Berube  
M. Lacroix  
V. Remenda  
A. Hardie  
J. Hopwood

C. Salmon, Commission Registrar  
C. Howlett, General Counsel  
C. Zou, Recording Secretary

CNSC staff advisors: Karen Owen-Whitred, Alexandre Viktorov, Carol Chan, Luc Sigouin, Wasif Islam, Andrew Stewart, Tara Foster-Hunt, Kevin Ross, Melissa Fabian Mendoza, Adam Levine, Elias Dagher, Kim Cunningham, Aidan Leach, Justin Sigetich, Nadia Petseva, Richard Tennant, Lindsay Pozihun, Saif Khan, Claire Pike, Sylvain Faille, Andrew McAllister, Rebekah Van Hoof, Diana Moscu, Nancy Greencorn, Jeffrey Lam

Other contributors:

- Ontario Power Generation Inc. (OPG): Kathleen Carew
- Bruce Power Inc. (Bruce Power): Mary Burton, Danielle La Croix
- Canadian Nuclear Laboratories Ltd. (CNL): Jan Preston, Sarah Brewer, Angela Coulas, Mitch MacKay, Stephen Morris, George Dolinar, Kristan Schruder, Brian Wilcox
- Manitoba Métis Federation: Marci Riel
- Algonquins of Pikwàkanagàn First Nation: Steve Benoit, Samantha Galbraith
- Kebaowek First Nation: Kerry Blaise, Rosanne Van Schie

### **Constitution**

1. With the Notice of Meeting Commission Member Document (CMD) [24-M38](#) been properly given and all Commission Members present, the meeting was properly constituted.
2. For the meeting, [CMD 24-M16](#), [CMD 24-M17](#), [CMD 24-M40](#) and [CMD 24-M41](#) were distributed to Commission Members. These documents are further detailed in [Appendix A](#) of these minutes.

### **Adoption of the Agenda**

3. The revised agenda, [CMD 24-M39.A](#), was adopted as presented.

### **Chair and Registrar**

4. President Tremblay chaired the meeting of the Commission, assisted by C. Salmon, Commission Registrar.

### **Minutes of the Commission Meeting Held September 12, 2024**

5. The [minutes](#) of the Commission meeting held on September 12, 2024, were approved secretarially in advance of this meeting.

### **Participant Funding Program**

6. In its *Notices of Participation at a Commission Meeting and Participant Funding*,<sup>1,2</sup> the CNSC invited members of the public to intervene, by way of written submission, regarding the following submissions from CNSC staff:
  - *Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023* (CNL ROR)
  - *Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023* (nuclear substances ROR)

In the spirit of reconciliation and in recognition of the Indigenous oral tradition for sharing knowledge, Indigenous Nations and communities were invited to also make oral presentations regarding the 2 RORs. The CNSC announced the availability of funds through the Participant Funding Program (PFP) to assist in the review of the RORs. A Funding Review Committee, independent of the CNSC,

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<sup>1</sup> [CNSC Notice of Participation at a Commission Meeting and Participant Funding - Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023](#), March 4, 2024.

<sup>2</sup> [CNSC Notice of Participation at a Commission Meeting and Participant Funding - Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023](#), March 11, 2024.

reviewed funding applications and made recommendations for funding to the eligible applicants. Details of the PFP amounts allocated are provided in paragraphs 21 and 47 of the minutes.

### **Status Report on Power Reactors**

7. With reference to [CMD 24-M40](#), which includes the status of the power reactor facilities as of October 18, 2024, CNSC staff presented the following updates:
- Darlington Nuclear Generation Station (NGS) Unit 1 shut down on October 24, 2024 due to a boiler low-level alarm while returning to service from refurbishment. Both shutdown systems 1 and 2 actuated as expected and the unit shut down safely. As of November 7, 2024, Unit 1 had returned to 30% full power.

#### *Discussion*

8. Regarding the Darlington NGS Unit 1 shutdown, the Commission asked for more information concerning OPG's immediate actions and CNSC staff's planned follow-up. A representative from OPG elaborated on OPG's safety stand-down, including communication to its workforce and vendor partners. CNSC staff explained that it would review findings related to the root cause, lessons learned, and extent of conditions, and provided information on its monitoring plan for this specific event. The Commission requested a further update on the root cause of the Darlington NGS Unit 1 shut down.
9. The Commission enquired about OPG's root cause investigation for the reported Darlington NGS Unit 2 shutdown, which was caused by a forced outage due to a loss of excitation. A representative from OPG described OPG's troubleshooting progress and findings to date.

**ACTION**  
by June  
2025

### **UPDATE ON AN ITEM FROM A PREVIOUS COMMISSION PROCEEDING: CNSC staff and Bruce Power – Responses to Nuclear Transparency Project's recommendations on Bruce Power's mid-term update of licensed activities (Commission Action #31670)**

10. In response to Commission Action #31670, CNSC staff and Bruce Power both submitted written responses to address the recommendations from Nuclear Transparency Project (NTP) presented at the [September 2023](#) Commission meeting.<sup>3</sup>
11. CNSC staff included the following information in its submission ([CMD 24-M41](#)):

<sup>3</sup> Following the oral presentation by the Nuclear Transparency Project, [CMD 23-M27.29](#), the Commission requested that Bruce Power and CNSC staff respond to NTP's recommendations aiming at making current disclosures of data on the Open Government Portal more user friendly.

- a response to each recommendation directed at the CNSC
  - the conclusion that no changes to regulatory requirements would be needed, and that the current CNSC processes and practices were sufficient
  - the conclusion that there were no concerns related to nuclear safety or Bruce Power's compliance in the areas of public information and disclosure and environmental data reporting
12. Bruce Power included the following information in its submission ([CMD 24-M41.1](#)):
- a response to each recommendation directed at Bruce Power
  - its follow up activities with NTP
  - the plan to supplement its Environmental Protection Reports and Environmental Risk Assessment<sup>4</sup> (ERA) through 2027

#### *Discussion*

13. The Commission sought further information on the following topics:
- any feedback from NTP upon receiving Bruce Power's groundwater flow diagrams
  - any tracking of the species of fish impinged and entrained, and any specific species particularly impacted
  - Bruce Power's planned implementation date for CNSC regulatory document [REGDOC-3.1.1, Reporting Requirements for Nuclear Power Plants](#) (2024),<sup>5</sup> which includes the requirement to report effluent data in machine-readable format
14. In response, Bruce Power:
- confirmed that no feedback was received regarding the diagrams
  - provided a description of Bruce Power's continuous tracking of fish impingement and entrainment results, including details about species, summarized in its *Fisheries Act Authorization*<sup>6</sup> and Environmental Protection Reports; and that gizzard shad was a more affected species.

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<sup>4</sup> Every 5 years, nuclear facilities and uranium mine and mills licensees must update an ERA, in accordance with CSA N288.6, *Environmental risk assessments at nuclear facilities and uranium mines and mills*, and CNSC REGDOC-2.9.1, *Environmental Protection: Environmental Principles, Assessments and Protection Measures*. An ERA evaluates a facility's impact on the environment under normal operating conditions. With each update, the ERA also considers changing environmental conditions that could be attributed to climate change, and if there has been any resulting change to the environmental risk profile to receptors from the facility.

<sup>5</sup> CNSC REGDOC-3.1.1, *Reporting Requirements for Nuclear Power Plants*, May 2024.

<sup>6</sup> In 2019, Bruce Power obtained a Fisheries Act Authorization from Fisheries and Oceans Canada (DFO) that permits continued operation with a requirement to meet specific conditions related to impingement and entrainment, including offsetting to provide complete compensation for the fish losses incurred through impingement and entrainment.

15. CNSC staff confirmed in writing to the Commission Registry that Bruce Power's implementation date for REGDOC-3.1.1 (2024) is January 1, 2025.<sup>7</sup>
16. The Commission was satisfied with the information provided by CNSC staff and Bruce Power regarding this item and commended both for dispositioning NTP's comments.

**Regulatory Oversight Report for Canadian Nuclear Laboratories**  
**Sites: 2023**

17. In its submission of the 2023 CNL ROR ([CMD 24-M16](#)), CNSC staff provided a summary of the safety performance of the following CNL sites for the 2023 calendar year:
  - Chalk River Laboratories
  - Whiteshell Laboratories,<sup>8</sup> currently undergoing decommissioning
  - Port Hope Area Initiative, which includes the Port Hope Project, the Port Granby Project, the Port Hope Pine Street Extension Temporary Storage Site, and the Port Hope Radioactive Waste Management Facility
  - 3 shut-down facilities – the Douglas Point Waste Facility, the Gently-1 Waste Facility, and the Nuclear Power Demonstration Waste Facility
18. The 2023 CNL ROR also includes information on:
  - CNSC staff's assessments of the CNL sites across the 14 Safety and Control Areas (SCAs), with a focus on the radiation protection, environmental protection, and conventional health and safety SCAs
  - engagement with Indigenous Nations and communities, and the public
  - reportable events and other matters of interest including an overview of the 2023 CNSC Independent Environmental Monitoring Program (IEMP), and updates on the major projects at Chalk River Laboratories
  - the status of issues raised by Indigenous intervenors in relation to the previous CNL ROR ([CMD 23-M30](#))
  - the engagement activities in 2023 in relation to the CNSC Terms of Reference for long-term engagement with Indigenous Nations and communities

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<sup>7</sup> Prior to closure of this meeting, CNSC staff informed the Registry that the planned implementation date of REGDOC-3.1.1 (2024) for Bruce Power is January 1, 2025. Bruce Power planned to reflect requirements in REGDOC-3.1.1 (2024) in its quarterly reports for the 2025 calendar year and its annual report for the 2024 calendar year (submitted in 2025).

<sup>8</sup> An application by CNL for the renewal of its licence for Whiteshell Laboratories was before the Commission in a public hearing on [October 23, 2024](#). As this was an open matter before the Commission at the time of the meeting, the Commission did not seek specific information concerning CNL's performance at the Whiteshell Laboratories during this meeting.

- a dashboard summarizing the results of the 2023 CNL ROR
19. In 2023, CNSC staff rated all SCAs for each CNL site as “satisfactory” except for the human performance management SCA and emergency management and fire protection SCA at Whiteshell Laboratories, which were both rated “below expectations”.
20. The overall CNSC staff conclusion for 2023, is that the CNL sites operated safely and that the workers at each facility were protected from radiation and conventional health and safety hazards, and there were no environmental releases that could harm the environment or the health and safety of people.

*Interventions on the 2023 CNL ROR*

21. With respect to the CNSC’s [PFP availability for the 2023 CNL ROR](#), the [Funding Review Committee](#) recommended that [up to \\$105,625.86 in participant funding](#) be provided to 8 applicants. These applicants, along with their interventions, are listed below:
- Manitoba Métis Federation ([CMD 24-M16.3](#), [CMD 24-M16.3A](#))
  - Nuclear Transparency Project ([CMD 24-M16.4](#))
  - Canadian Environmental Law Association ([CMD 24-M16.5](#))
  - Algonquins of Pikwàkanagàn First Nation ([CMD 24-M16.6](#), [CMD 24-M16.6A](#))
  - Chippewas of Kettle and Stony Point First Nation ([CMD 24-M16.7](#))
  - Kebaowek First Nation ([CMD 24-M16.8](#))
  - Mississaugas of Scugog Island First Nation ([CMD 24-M16.9](#))
  - Radiation Safety Institute of Canada ([CMD 24-M16.10](#))
22. In addition to the interventions received from PFP recipients, the Commission also received the following intervention regarding the 2023 CNL ROR:
- Canadian Nuclear Association ([CMD 24-M16.2](#))
23. The Manitoba Métis Federation (MMF) provided the Commission with an oral presentation and a written submission that focused on Whiteshell Laboratories, outlining the following:
- recognition of continuous performance improvements at Whiteshell Laboratories
  - concerns with performance in relation to the radiation protection, emergency management and fire protection, and human performance management SCAs
  - recommendations on oversight from the CNSC and AECL
  - recommendations on further engagement opportunities with the MMF

- concerns with the reporting and management of nuclear materials throughout their lifecycle, especially the transportation of radioactive waste across the impacted communities
24. The Commission asked for additional information relating to the MMF's intervention, including:
- an update on the ERA for Whiteshell Laboratories
  - lessons learned from the compliance issues and safety concerns noted by the MMF, and their application to the other CNL sites
  - basis of the MMF's recommendation regarding onsite assessments and CNSC staff's approach to inspection methodologies
  - CNL's benchmarking activities against other industries, noting the MMF's recommendation that CNL be proactive in ensuring compliance and safety
  - CNSC staff's benchmarking activities with other regulators
  - clarification from the MMF regarding its comment on "lack of transparency" in the reporting of nuclear substances and radioactive waste
  - CNSC staff and CNL's perspectives regarding the MMF's concerns about a lack of information
25. CNL representatives, CNSC staff and the MMF provided the following in their responses:
- CNSC staff confirmed that it reviewed and accepted the revised ERA for Whiteshell Laboratories in October 2024
  - CNSC staff noted that CNL undertook activities, including a comprehensive review of all 14 SCAs across all its sites, and made improvements to its safety and corrective action programs, and organizational changes to enhance its safety culture
  - the MMF explained its recommendation, with the intent of building trust, based on benchmarking of other industries and regulators; CNSC staff explained its oversight approach, including a risk-informed compliance verification plan that guides subsequent oversight activities, including inspections
  - CNL representatives reported on CNL's national and international benchmarking activities related to the management of its fire protection and emergency management programs, its approach to performance assurance including independent oversight, and noted a recent organizational change around the performance assurance program
  - CNSC staff outlined its interactions with other regulators regarding licensing, compliance oversight and inspections, and provided an update on the ongoing work with the MMF, including involvement in the IEMP, and Terms of Reference for long-term engagement



- the MMF explained its concern to be the lack of information due to how “the lifecycle of a project” is viewed differently by CNL, the CNSC and Indigenous Nations and communities
  - the MMF noted an opportunity to standardize the definition of “transparency” across different regulators; CNSC staff explained its information sharing approach and noted the opportunity for increased transparency in information sharing for future RORs
  - CNL representatives described CNL’s collaborative approach when working with Indigenous Nations and communities
26. The Algonquins of Pikwàkanagàn First Nation (AOPFN) provided the Commission with an oral presentation and a written submission that focused on Chalk River Laboratories and the Nuclear Power Demonstration Waste Facility, outlining the following:
- recognition of the CNSC and CNL’s ongoing progress in strengthening their relationships with the AOPFN, including CNSC staff’s acknowledgement of the AOPFN’s proposed Aboriginal Rights criteria and the incorporation of Indigenous Knowledge into CNSC staff reports
  - recommendations on engagement with the AOPFN, including further opportunities, communication strategies, respect for the AOPFN’s future consent decisions, and addressing funding gaps related to the AOPFN’s participation
  - concerns about a lack of evidence in the ROR regarding the incorporation of Indigenous rights and knowledge
  - a recommendation to enhance the accessibility of the technical terminologies in the ROR
27. The Commission appreciated the AOPFN’s presentation of information in a table format, the sharing of its 7 sacred teachings, and recognized the ongoing positive communication between the AOPFN and CNL.
28. The Commission asked for additional information related to the AOPFN’s intervention, including:
- details around the plans to further improve the communication with the AOPFN and an update on progress made in 2024
  - how CNSC staff shares and processes Indigenous knowledge, once collected
  - the AOPFN’s suggestions for improving plain language summaries
  - how CNSC staff gathered and consolidated information for clear communication to the Commission and the public, especially for reports like plain language summaries
  - the possibility of providing accessible background information to Indigenous Nations and communities and the public, beyond reporting through the ROR and the IEMP where a plain language summary does not provide enough information

29. In their responses, CNL representatives, CNSC staff and the AOPFN mentioned:
- CNSC staff noted its current communication with AOPFN through monthly meetings and the long-term engagement workplan, with results summarized in the ROR, and shared plans to form a weekly communication working group to improve the clarity of communication with the AOPFN members, and to improve reporting to the Commission
  - CNSC staff explained the CNSC's [Indigenous Knowledge Policy Framework](#) and [IEMP](#), with a note on its preliminary discussions around providing support to Indigenous Nations and communities in forming their independent monitoring programs as part of the [Indigenous Guardians](#) initiatives
  - the AOPFN suggested direct communications with Indigenous Nations and communities,
  - CNSC staff outlined how it prepares plain language summaries, noting the need to balance technical details and accessibility
  - CNSC staff shared its current practice on information sharing and outreach, and acknowledged opportunities to enhance the availability of information and to improve the accessibility of its plain language summaries
30. The Kebaowek First Nation (KFN) provided the Commission with an oral presentation and a written submission, outlining the following:
- recommendations on further engagement opportunities with the KFN
  - KFN's concerns that the CNSC regulatory approach remains out of step with the [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP) and the [United Nations Declaration on the Rights of Indigenous Peoples Act](#) (UNDA)
  - a recommendation to include [Kunming-Montreal Biodiversity Framework](#) among the international obligations reviewed and report on targets 14 to 23
  - a recommendation for the Commission to direct CNSC staff and CNL to conduct cumulative effects review of all major projects occurring at Chalk River Laboratories
  - a request of further information in the ROR for those CNL projects that may fall under section 82<sup>9</sup> of the [Impact Assessment Act](#) (IAA),<sup>10</sup> and for CNL's ongoing or upcoming construction projects including a Near Surface Disposal Facility, an Advanced

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<sup>9</sup> 82 An authority must not carry out a project on federal lands [...], unless  
 (a) the authority determines that the carrying out of the project is not likely to cause significant adverse environmental effects; or  
 (b) the authority determines that the carrying out of the project is likely to cause significant adverse environmental effects and the Governor in Council decides, under subsection 90(3), that those effects are justified in the circumstances.

<sup>10</sup> S.C. 2019, c. 28, s. 1.

Nuclear Materials Research Centre, and a Modern Combined Electrolysis and Catalytic Exchange Facility (MCECE)

31. The Commission asked for additional information related to the KFN's intervention, including:
- CNL's MCECE facility
  - if the KFN had an opportunity to discuss or comment on CNL's projects
  - ways to acknowledge Indigenous knowledge or results from Indigenous engagement activities
32. CNL representatives, CNSC staff and the KFN provided the following in their responses:
- CNL representatives explained the anticipated operation of the planned new MCECE facility, including estimated emissions, the progress of the project, and CNL's environmental effects review
  - the KFN confirmed its participation in engagement activities regarding the MCECE, noting its remaining concerns regarding the facility; CNSC staff remarked that the activity at MCECE is not a new activity, but modernization of an existing activity within the licensing basis, and explained its assessment process
  - CNSC staff explained its approach to working with Indigenous Knowledge is guided by the CNSC's [Indigenous Knowledge Policy Framework](#); CNL representatives described CNL's standard consultation practices and community-based approach, noting the development of a disclosure agreement or information-sharing protocol for the KFN

*Discussion on the 2023 CNL ROR*

33. The Commission noted CNL's acknowledgement of its "below expectations" performance rating along with the corrective actions under the emergency management and fire protection SCA in 2023. The Commission sought additional information in relation to CNL's response to non-compliances, including:
- an update on CNL's plan to close the outstanding non-compliances under the emergency management and fire protection SCA at Chalk River Laboratories
  - the cause and the extent of conditions of the non-compliance identified at the Port Hope Area Initiative regarding lack of role differentiation between approver and worker, under the management system SCA
  - an update on the status of 13 non-compliances in relation to cyber security, as well as extent of conditions, recognizing that only unclassified information can be shared with the public
34. CNL representatives and CNSC staff provided the following in their responses:

- CNSC staff explained its oversight activities following the discovery of issues at Whiteshell Laboratories, including a request for CNL to conduct a review of similar issues across all CNL sites, and provided an update that all non-compliances at Chalk River Laboratories from 2023 have been closed;<sup>11</sup> CNL representatives shared lessons learned from this process including planned improvements of its management systems
  - CNSC staff and CNL representatives explained how their respective organizations evaluate, track and address non-compliances
  - CNSC staff reported that it had closed 4 non-compliances and was reviewing CNL's corrective actions for the remaining 9, and outlined its comprehensive inspection of CNL's cyber security program across all CNL sites
35. The Commission sought additional information in relation to the SCAs, including:
- the substances that triggered the continued International Atomic Energy Agency (IAEA) inspections at the Port Hope Area Initiative and the anticipated end date of the IAEA inspections
  - how CNSC staff plans and allocates resources across the various SCAs
  - how CNL's management system ensures adequate self-assessment
  - a detailed description of the types of inspections conducted by CNSC staff
36. CNL representatives and CNSC staff provided the following in their responses:
- CNSC staff explained the general purpose of IAEA inspections – to verify Canada's ongoing compliance with the Canada/IAEA safeguards requirements – and the particular reasons for the ongoing IAEA inspections in the Port Hope area – to verify the quantities of uranium being emplaced in the mound<sup>12</sup>
  - CNSC staff explained the CNSC's compliance oversight program, which includes a 10-year base plan, reviewed annually, covering the focus areas and the inspection frequencies for the SCAs at each facility
  - CNL representatives explained CNL's management system, including its plan for self-assessments, internal and external audits for all CNL sites, and planned improvements
  - CNSC staff described its inspections, including desktop reviews and onsite inspections covering both Type 1 and Type 2

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<sup>11</sup> These non-compliances were not characterized as safety significant – see Appendix B of CMD 24-M16 for details around safety performance rating levels.

<sup>12</sup> The Port Hope Area Initiative is an environmental remediation project for the cleanup and safe long-term management of historic low-level waste within the municipalities of Port Hope and Clarington.

inspections, noting that most inspections conducted for the purpose of this ROR being Type 2

37. The Commission sought additional information on activities in relation to Indigenous Nations and communities, including:
  - details around CNL’s Indigenous Vendor Portal and Indigenous Business Network
  - doses to Indigenous Nations and communities members being hired as nuclear energy workers at CNL, noting the written intervention from Mississaugas of Scugog Island First Nation ([CMD 24-M16.9](#))
38. CNL representatives and CNSC staff provided the following in their responses:
  - CNL representatives explained that CNL’s initiatives are intended to foster partnerships and collaboration with Indigenous communities and businesses
  - CNL representatives outlined the dose limits for persons who live in close proximity to the CNL sites, as well as for nuclear energy workers, highlighting that CNL operates at a small fraction of both limits; CNSC staff noted that further details on doses to persons are in the ERAs for the facilities
39. The Commission asked for an update on the current activities, the 3-to-5-year plans, and CNSC staff’s regulatory readiness for work relating to the Douglas Point Waste Facility and Gentilly-1 Waste Facility. CNL representatives and CNSC staff provided updates on the current and planned activities, as well as regulatory oversight activities, for both sites; highlighted an upcoming activity at Chalk River Laboratories, the consolidation of high-level waste stored at Gentilly-1 Waste Facility, which is authorized under CNL’s current licence.
40. The Commission, noting the written intervention from Canadian Environmental Law Association ([CMD 24-M16.5](#)), asked if CNL’s proposal to sublease a parcel of land on the Chalk River Laboratories site for commercial project development fell within its current licence. CNSC staff responded that the parcel of land in question was within the exclusion zone at Chalk River Laboratories, owned by AECL, and that the proposal would not fall within CNL’s current licence. CNSC staff noted that no formal application for such development had been received, only preliminary discussions with CNL.
41. The Commission expects CNL to provide an update on its benchmarking activities to improve compliance and safety, including the management of fire protection, emergency management and performance assurance programs, at the time the next CNL ROR is presented.

**ACTION**  
by  
December  
2025

42. The Commission appreciated the quality of the 2023 CNL ROR and provided positive feedback on the presentation of information, and the ROR Dashboard.

### **Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023**

43. With reference to [CMD 24-M17](#) (nuclear substances ROR),<sup>13</sup> CNSC staff presented a summary of the safety performance on the use of nuclear substances in Canada in the 2023 calendar year, covering licensees in the medical, industrial, commercial, and academic and research sectors.
44. The 2023 nuclear substances ROR includes information on the following:
- CNSC staff's inspections conducted in 2023
  - CNSC staff's assessment of licensee compliance and performance, focusing on the SCAs that are the most relevant indicators of licensee safety performance<sup>14</sup>
  - enforcement actions taken in 2023, including orders and administrative monetary penalties
  - radiation doses to workers and licensee performance in keeping doses as low as reasonably achievable (ALARA)
  - events reported by the licensees in 2023
  - engagement with Indigenous Nations and communities and the public
  - safeguards-related activities and international regulations and other commitments
  - the status of issues raised by intervenors in relation to the previous nuclear substances ROR ([CMD 23-M31](#))
  - outreach and engagement activities in 2023
45. CNSC staff reported that most of the licensees inspected met regulatory requirements and that 7 “unacceptable” ratings were issued, across all SCAs, out of over 800 inspections. CNSC staff confirmed that appropriate corrective actions had been taken by the licensees for all non-compliances, and that all enforcement actions issued in 2023 had been closed.

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<sup>13</sup> CNSC staff noted an error in the second paragraph under section 5.2 of CMD 24-M17, regarding the operating performance SCA within the radiation therapy subsector. The correct information is: 50% of inspections achieved a satisfactory rating, and a total number of 4 inspections were performed.

<sup>14</sup> The SCAs of focus are management system, operating performance, radiation protection and security. For waste nuclear substance licensees, the environmental protection and conventional health and safety SCAs are also of focus.

46. In addition, CNSC staff provided a status update on Mississauga Metals & Alloys Inc. (MM&A)<sup>15</sup> and noted changes to the 2023 nuclear substances ROR, including the following:
- additional information on CNSC staff's compliance efforts and outreach activities in addressing the compliance issues in the medical sector radiation protection SCA<sup>16</sup>
  - more granular reporting of worker doses at lower exposure levels

CNSC staff concluded that, in 2023, the nuclear substances licensees met CNSC requirements.

*Interventions on the 2023 nuclear substances ROR*

47. With respect to the CNSC's [PFP availability for the 2023 nuclear substances ROR](#), the [Funding Review Committee](#) recommended that [up to \\$22,175 in participant funding](#) be provided to 4 applicants. These applicants, along with their interventions, are listed below:
- Manitoba Métis Federation ([CMD 24-M17.2](#), [CMD 24-M17.2A](#))
  - Nuclear Transparency Project ([CMD 24-M17.3](#))
  - Radiation Safety Institute of Canada ([CMD 24-M17.5](#))
  - Kebaowek First Nation ([CMD 24-M17.6](#))
48. In addition to the interventions received from PFP recipients, the Commission also received the following intervention regarding the 2023 nuclear substances ROR:
- Canadian Radiation Protection Association ([CMD 24-M17.4](#))
49. The MMF provided the Commission with an oral presentation and a written submission, outlining the following:
- recommendations on regulatory oversight including enhanced oversight, particularly in areas related to the transportation, storage, and disposal of nuclear substances, and timely regulatory intervention when needed<sup>17</sup>
  - a recommendation for a comprehensive evaluation of all SCAs, including in the areas of environmental protection and emergency preparedness

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<sup>15</sup> MM&A declared bankruptcy on August 20, 2021 and subsequently its waste nuclear substance licence expired on February 28, 2022. The bankruptcy of MM&A was brought to the attention of the Commission at the [October 2021 Commission meeting](#). In its decision in November 2023 ([DEC 23-H104](#)), the Commission directed CNSC staff to work towards a solution to ensure the safety and security of the MM&A site and of the nuclear substances located on the MM&A site. CNSC staff continues to provide updates on this file as new information becomes available.

<sup>16</sup> At the [Commission meeting in November 2023](#), the Commission directs that in the 2023 nuclear substances ROR, CNSC staff add additional information on the compliance efforts and additional outreach and communication activities undertaken to address some of the compliance issues noted in the medical sector Radiation Protection SCA.

<sup>17</sup>The MMF suggested timely intervention from the CNSC when licensees face financial instability or other operational risks, as lessons learned from MM&A's bankruptcy.

- a recommendation for the CNSC to implement a proactive regulatory framework for future regulatory changes, especially for high-risk sectors
50. The Commission asked for additional information related to the MMF's intervention, including:
- the status of MM&A
  - the rationale for not explicitly discussing the environmental protection SCA in the nuclear substances ROR
  - the transport of nuclear substances across the MMF lands
  - the use of Cobalt-60 for sterilization
  - emergency preparedness
  - CNSC staff's response to the MMF's suggestion to add additional risk management items, in respect of Aboriginal rights under [Section 35](#) of the *Constitution Act, 1982*
51. CNSC staff provided the following in its responses:
- the nuclear substances stored at MM&A continue to be safe and secure since MM&A's declaration of bankruptcy in August 2021; CNSC staff also provided an update on the CNSC's procurement activities for waste characterization and to facilitate the removal of substances from the site
  - most licensees covered in the ROR deal with sealed nuclear substances and have no interactions with the environment; for the small number of waste nuclear substance licensees who deal with unsealed nuclear substances, CNSC staff explained the expected interactions with the environment and the CNSC's risk-informed compliance verification plan for these licensees, including an assessment of the environmental protection SCA
  - the CNSC's environmental protection approach for the transport of nuclear substances ensures that packaging is designed to prevent content loss during both normal transport and accident scenarios
  - Cobalt-60 sterilization facilities are considered Class II facilities and are covered in the nuclear substances ROR under the industrial or the commercial category
  - information on the CNSC's requirements and expectations for licensees in relation to emergency preparedness throughout the licensing process, as well as its compliance verification activities
  - an acknowledgement of the MMF's recommendation to provide information in respect of Aboriginal rights, and a commitment to making improvements to future nuclear substance RORs in collaboration with Indigenous Nations and communities
52. The KFN provided the Commission with an oral presentation and a written submission, outlining the following:



- recommendations on engagement with the KFN, including further opportunities and ensuring stable funding for the KFN's participation
  - a recommendation that the CNSC conduct a cumulative effects review of all nuclear activities on KFN lands
  - concerns that the CNSC's regulatory approach remains out of step with the UNDRIP and the UNDA
  - a recommendation to require all licensees to report radionuclide data via the [National Pollutant Release Inventory](#)
  - recommendations on information to be added to the ROR<sup>18</sup>
53. The Commission asked for additional information related to the KFN's intervention, including:
- CNSC staff's regulatory oversight in relation to the areas with lower inspection numbers, including the environmental protection, and conventional health and safety SCAs
  - any nuclear substances being produced at Chalk River Laboratories and transported offsite for commercial purposes
  - CNSC staff's approach to assessing cumulative effects
54. CNSC staff provided the following in its responses:
- a description of its oversight activities for waste nuclear substance licensees, noting that other licensees covered in the nuclear substances ROR do not have interactions with the environment
  - that there are no activities covered under this ROR at Chalk River Laboratories
  - an explanation of its assessment of cumulative effects – encompassed by activities including environmental reviews for proposed projects, and reviews of ERAs and environmental monitoring data – noting its efforts to improve data transparency, and collaboration with local Indigenous Nations and communities

*Discussion on the 2023 nuclear substances ROR*

55. With regard to the Commission's request for additional information in relation to the transport of nuclear substances, CNSC staff provided the following in its responses:
- an explanation of its evaluation of reported events related to the packaging and transport of nuclear substances, noting that the number of events was low compared to approximately 760,000 total shipments in 2023
  - the nuclear substances covered in the ROR are low-risk materials, not spent fuel or other higher-risk materials; CNSC staff also

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<sup>18</sup> The KFN suggested adding further information in future RORs including climate change impacts (required by subsection 24(4) of the NSCA), any substances transported from or to Chalk River, details of licence holders including and their locations and activities, any risks to the environment, description of decommissioning and waste management plans for those proposing to store, dispose or manage waste at Chalk River, the complaints process and details, and any potential nuclear substance licensees.

provided an explanation of the regulation of spent fuel transportation<sup>19</sup>

- it has no concerns with the number of motor vehicle accidents in 2023, noting the slight increase caused by wildfires in certain parts of the country leading to collisions with animals
- low-risk packages are handled by licensed and certified drivers

56. The Commission sought additional information in relation to the operating performance SCA, including:

- the declining performance within the radiation therapy subsector
- factors that contributed to the improvement in the fixed gauge subsector, reversing its trend for the first time in 5 years
- further details on performance in the industrial sector, such as regional variations
- impacts of the COVID-19 pandemic and the publication of amended [Radiation Protection Regulations](#) in 2021 on the performance in the industrial sector

57. CNSC staff provided the following in its responses:

- the rating for the radiation therapy subsector was based on a limited number (4) of inspections conducted which may not be representative of the sector as a whole; the non-compliances were not safety significant
- contributing factors for improvements in the fixed gauge subsector included increased and more targeted dissemination of information through digest articles, increased inspections and oversight, as well as enforcement actions for non-compliances
- for the industrial sector, certain industries are concentrated in specific regions of the country, while others spread throughout; the operating performance SCA in the industrial sector is generally above 70%, while the inspection frequency varies based on the risk of the use type<sup>20</sup>
- noting the cycle of inspection frequencies, the expected performance adjustment process for licensees in the industrial sector is expected take some time

58. The Commission asked additional questions on the following topics:

- clarification around the application of a “conservative approach”
- the declining performance of the nuclear medicine subsector in the radiation protection SCA

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<sup>19</sup> CNSC staff noted that the safety measures and the regulatory requirements for transport are commensurate with the risk posed by the substance being transported and the transport of used nuclear fuel in Canada is regulated in accordance with the CNSC’s [Packaging and Transport of Nuclear Substances Regulations, 2015](#) (PTNSR 2015) and Transport Canada’s [Transportation of Dangerous Goods Regulations](#), governed by the IAEA’s safety requirements document No. SSR-6, [Regulations for the Safe Transport of Radioactive Material](#).

<sup>20</sup> There are about 60 different types of licences (called use types) that can be issued for nuclear substances and radiation devices. See [Appendix B of REGDOC-1.6.1, Licence Application Guide: Nuclear Substances and Radiation Devices](#), CNSC, May 2017.

- means to promote compliance aside from enforcement
59. In its response, CNSC staff:
- described its graduated, risk-informed approach to inspections while noting financial and human resources limitations
  - noted that it provided an update on the medical sector at the [Commission meeting on May 22, 2024 \(CMD 24-M23\)](#)
  - noted that it communicates and collaborates with industry associations through different channels to promote compliance, by discussing challenges, concerns, and requirements
60. The Commission noted its appreciation of the quality of the information presented for the 2023 nuclear substances ROR.

**Closure of the Public Meeting**


61. The public portion of the Commission meeting closed at 4:33 pm EST on November 7, 2024. These minutes reflect both the public meeting itself and the Commission’s considerations following the meeting.

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HuiRu**  Digitally signed by Zou, HuiRu  
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Recording Secretary

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Date

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Commission Registrar

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Date

## APPENDIX A – Commission Member Documents

CMD	Date	e-Docs No.
24-M38	2024-10-09	7378908
Notice of Commission Meeting for November 7, 2024		
24-M39	2024-11-06	7385938
Agenda of the Meeting of the Canadian Nuclear Safety Commission (CNSC) to be held on November 7, 2024, at 140 Promenade du Portage, Phase IV, Gatineau, Quebec		
24-M39.A	2024-11-12	7385938
Revised agenda of the Meeting of the Canadian Nuclear Safety Commission (CNSC) to be held on November 7, 2024, at 140 Promenade du Portage, Phase IV, Gatineau, Quebec		
24-M40	2023-10-30	7386171 – English 7394923 – French
Status Report		
Status Report on Power Reactors		
Written submission from CNSC Staff		
23-M41	2024-10-28	739480
Information Item		
Update from CNSC Staff on Items from a Previous Meeting		
Written submission from CNSC Staff		
23-M41.1	2024-10-28	7394362
Information Item		
Update from Bruce Power on Items from a Previous Meeting		
Written submission from Bruce Power		
24-M16	2024-08-02	7335572 – English 7335371 – French
Information Item		
Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023		
Written submission from CNSC Staff		
24-M16.2	2024-10-03	7379050
Information Item		
Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023		
Written Submission from the Canadian Nuclear Association		
24-M16.3	2024-10-04	7379065

CMD	Date	e-Docs No.
Information Item  Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023  Written Submission from the Manitoba Métis Federation (M. Riel)		
24-M16.3A	2024-10-22	73779255
Information Item  Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023  Presentation from the Manitoba Métis Federation (M. Riel)		
24-M16.4	2024-10-04	7379065
Information Item  Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023  Written Submission from the Nuclear Transparency Project		
24-M16.5	2024-09-30	7379083
Information Item  Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023  Written Submission from the Canadian Environmental Law Association		
24-M16.6	2024-10-07	7379112
Information Item  Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023  Written submission from the Algonquins of Pikwàkanagàn First Nation		
24-M16.6A	2024-10-23	7388822
Information Item  Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023  Presentation from the Algonquins of Pikwàkanagàn First Nation		
24-M16.7	2024-10-03	7379148
Information Item  Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023  Written submission from the Chippewas of Kettle and Stony Point First Nation		
24-M16.8	2024-10-07	7379159

CMD	Date	e-Docs No.
<p>Information Item</p> <p>Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023</p> <p>Written submission from the Kebaowek First Nation</p>		
24-M16.9	2024-10-03	7379185
<p>Information Item</p> <p>Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023</p> <p>Written submission from the Mississaugas of Scugog Island First Nation</p>		
24-M16.10	2024-10-03	7379185
<p>Information Item</p> <p>Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2023</p> <p>Written submission from the Radiation Safety Institute of Canada</p>		
24-M17	2024-08-08	7337221 – English 7337204 – French
<p>Information Item</p> <p>Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023</p> <p>Written submission from CNSC Staff</p>		
24-M17.2	2024-10-04	7379185
<p>Information Item</p> <p>Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023</p> <p>Written Submission from the Manitoba Métis Federation (M. Riel)</p>		
24-M17.2A	2024-10-22	7387999
<p>Information Item</p> <p>Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023</p> <p>Presentation from the Manitoba Métis Federation (M. Riel)</p>		
24-M17.3	2024-09-30	7378381

CMD	Date	e-Docs No.
<p>Information Item</p> <p>Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023</p> <p>Written Submission from the Nuclear Transparency Project</p>		
24-M17.4	2024-10-02	7378417
<p>Information Item</p> <p>Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023</p> <p>Written Submission from the Canadian Radiation Protection Association</p>		
24-M17.5	2024-10-04	7378483
<p>Information Item</p> <p>Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023</p> <p>Written Submission from the Radiation Safety Institute of Canada</p>		
24-M17.6	2024-10-04	7378496
<p>Information Item</p> <p>Regulatory Oversight Report on the Use of Nuclear Substances in Canada: 2023</p> <p>Written Submission from the Kebaowek First Nation</p>		