Record of Decision

DEC 25-H6

In the Matter of

Applicant	Nordion (Canada) Inc.
Subject	Application to Renew Nordion (Canada) Inc.’s Class IB Nuclear Substance Processing Facility Operating Licence for a Period of 25 Years
Date of Decision	August 28, 2025

RECORD OF DECISION – DEC 25-H6

Applicant:	Nordion (Canada) Inc.
Address/Location:	447 March Road, Ottawa, ON, K2K 1X8
Purpose:	Application to Renew Nordion (Canada) Inc.'s Class IB Nuclear Substance Processing Facility Operating Licence for a Period of 25 Years
Application received:	May 15, 2024
Supplementary Application received:	February 21, 2025
Date of decision:	August 28, 2025
Panel of the Commission:	P. Tremblay, President A. Hardie J. Hopwood
Registrar:	C. Salmon
Recording Secretary:	C. Zou
Commission Counsel:	C. Maheux

Applicant Represented By		Document Number
Riaz Bandali	President	CMD 25-H6.1 CMD 25-H6.1A
Richard Wassenaar	Director, Regulatory & EHS	
Richard Wiens	Director, Business Development & Strategic Supply	

CNSC staff		Document Number
L. Sigouin	Director General, Director General's Office, Directorate of Nuclear Cycle and Facilities Regulation (DNCFR)	CMD 25-H6 CMD 25-H6.A CMD 25-H6.B
A. McAllister	Director, Nuclear Processing Facilities Division (NPFD), DNCFR	
M. Davey	Project Officer, NPFD, DNCFR	
J. Duhaime	Project Officer, NPFD, DNCFR	
S. Gill	Project Officer, Major Projects and Strategic Support Division (MPSSD), DNCFR	
A. Levine	Director, Indigenous Consultation and Engagement Division (ICED), Strategic Planning Directorate (SPD)	
J. Bogden	Policy Officer, ICED, SPD	
R. Tennant	Director, Emergency Management Programs Division (EMPD), Directorate of Security and Safeguards (DSS)	
M. Fabian Mendoza	Director, Environmental Risk Assessment Division (ERAD), Directorate of Environmental and Radiation Protection and Assessment (DERPA)	
C. Maynard	Environmental Program Officer, Health Sciences and Environmental Compliance Division (HSECD), DERPA	
A. Salway	Human and Organizational Factors Specialist, Human and Organizational Performance Division (HOPD), Directorate of Safety Management (DSM)	
N. Kwamena	Director, Transport Licensing and Strategic Support Division (TLSSD), Directorate of Nuclear Substance Regulation (DNSR)	
Intervenors		
See Appendix A		

Licence: Renewed

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1.0 INTRODUCTION

1. Nordion (Canada) Inc. (Nordion) has applied to the Canadian Nuclear Safety Commission (CNSC or the Commission)[1] to renew its nuclear substance processing facility operating licence for its Class IB nuclear facility. The Nordion facility is located at 447 March Road, Ottawa, Ontario,[2] in proximity of the traditional territories of the Algonquin Anishinabeg Nation Tribal Council, the Kitigan Zibi Anishinabeg First Nation (KZAFN), Kebaowek First Nation (KFN), the Algonquins of Ontario (AOO), the Algonquins of Pikwàkanagàn First Nation (AOPFN), and the Métis Nation of Ontario.

2. Nordion's current licence, NSPFOL-11A.01/2025, which will expire on October 31, 2025,[3] authorizes the processing and manufacturing of nuclear substances and sealed sources, specifically cobalt-60 (Co-60), used in health sciences and industrial applications. This matter relates only to the Nordion-operated Cobalt Operations Facility.

Matters for Decision

3. The Commission is required to determine, pursuant to paragraphs 24(4)(a) and 24(4)(b) of the *Nuclear Safety and Control Act* (NSCA), whether Nordion:

   a) is qualified to carry on the activities authorized by the licence; and

   b) will make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

4. The Commission is also deciding whether any requirements under the *Impact Assessment Act*[4] (IAA) apply to this application such that an impact assessment is triggered. Satisfying any such requirements can be a prerequisite to a licensing decision.

5. As an agent of the Crown, the Commission recognizes its role in fulfilling the Crown's constitutional obligations, along with advancing reconciliation with Indigenous Peoples of Canada. The Commission's responsibilities include the duty to consult and, where appropriate, accommodate Indigenous interests where the Crown contemplates conduct which may adversely impact potential or established

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[1] The *Canadian Nuclear Safety Commission* is referred to as the "CNSC" when referring to the organization and its staff in general, and as the "Commission" when referring to the tribunal component.
[2] Nordion's facility at 447 March Road, Ottawa, Ontario consists of the Roy Errington building, where no licensed activities are carried out, and the Kanata Operations Building. The Kanata Operations Building consists of the Cobalt Operations Facility, operated by Nordion, as well as the Nuclear Medicine Production Facility and the Kanata Radiopharmaceutical Manufacturing Facility. The latter two facilities have been leased to BWXT Medical, which operates under its own CNSC licence issued in October 2021.
[3] Nordion's current licence was renewed in September 2015, for a period of 10 years (from November 1, 2015, to October 31, 2025). In February 2019, the licence was transferred to a new amalgamated company retaining the name Nordion (Canada) Inc., following an internal corporate reorganization.
[4] S.C. 2019, c. 28, s. 1.

Aboriginal[5] or treaty rights.[6] As such, the Commission must determine what engagement, consultation steps, and accommodation measures are called for in light of the interests of Indigenous Nations and communities.

Commission Procedures

6. On November 4, 2024, the Commission published a *Notice of Public Hearing and Participant Funding*[7] for this matter, which invited requests to intervene by April 27, 2025. On December 12, 2024, the Commission published a *Revised Notice of Public Hearing (Revision 1)*[8] to update the hearing dates and the participant funding deadline. On May 14, 2025, following the receipt of interventions, the Commission published another *Revised Notice of Public Hearing (Revision 2)*[9] to update the hearing date and location.

7. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission over which he would preside, including Mr. J. Hopwood and Ms. A. Hardie, to consider the application. In making its decision, the Commission considered information presented at a public hearing held on June 4, 2025, in Gatineau, Quebec. The public hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*[10] (the Rules). During the public hearing, the Commission considered written submissions and heard oral presentations from Nordion (CMD 25-H6.1 and CMD 25-H6.1A) and CNSC staff (CMD 25-H6, CMD 25-H6.A, and CMD 25-H6.B). The Commission also considered oral and written submissions from 10 intervenors (see Appendix A – List of Intervenors of this *Record of Decision* for a list of interventions). The hearing was webcast live via the CNSC website, with video archives available following the hearing. A transcript is available on request to the Commission Registry.

Confidentiality Requests

8. On February 21, 2025, Nordion submitted a request for confidentiality,[11] under rule 12 of the Rules. On April 30, 2025, the Commission issued its decision[12] on Nordion's request for confidentiality, setting out the measures it would take to protect information.

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[5] "Aboriginal" is the term used in this document when referring to the Crown's duty to consult as that is the term used in s. 35 of the *Constitution Act, 1982*. In all other cases, "Indigenous" is the preferred terminology and used accordingly.
[6] *Haida Nation v British Columbia (Minister of Forests)*, 2004 SCC 73; *Taku River Tlingit First Nation v British Columbia (Project Assessment Director)*, 2004 SCC 74.
[7] *CNSC Notice of Public Hearing and Participant Funding*, November 4, 2024.
[8] *CNSC Revised Notice of Public Hearing (Revision 1)*, December 12, 2024.
[9] *CNSC Revised Notice of Public Hearing (Revision 2)*, May 14, 2025.
[10] SOR/2000-211.
[11] *Nordion's Request for Confidentiality of Material Submitted in Relation to Renewal of Nordion Operating Licence*, February 21, 2025.
[12] CNSC Record of Decision, *Commission Ruling on Request to Protect Confidential Information under Rule 12, Canadian Nuclear Safety Commission Rules of Procedure*, April 30, 2025.

Participant Funding Program

9. Pursuant to paragraph 21(1)(b.1) of the NSCA, the Commission established a Participant Funding Program (PFP) to facilitate the participation of Indigenous Nations and communities, members of the public, and interested parties in Commission proceedings. In November 2024, funding was made available through the CNSC's PFP to review Nordion's application and associated documents, and to provide the Commission with value-added information through topic-specific interventions. A Funding Review Committee, independent of the CNSC, reviewed the funding application received and made recommendations on the allocation of funds. Based on the recommendations from the Committee, the CNSC awarded up to $40,812.34 to two applicants:

- Algonquins of Pikwàkanagàn First Nation
- Kebaowek First Nation

2.0 DECISION

10. For the reasons described more fully below, the Commission is satisfied that:

- this matter does not trigger any requirements under the IAA
- the licence renewal does not present novel adverse impacts on any potential or established Aboriginal claim or right
- the Commission's responsibility to uphold the honour of the Crown and its constitutional obligations regarding engagement and consultation respecting Indigenous interests have been satisfied
- Nordion is qualified to carry on the activities that the renewed licence will authorize
- in carrying on these activities, Nordion will make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed

11. As a result, the Commission renews the Class IB nuclear substance processing facility operating licence issued to Nordion (Canada) Inc. for its facility located in Ottawa, Ontario. The renewed licence, NSPFL-11A.00/2050, is valid from November 1, 2025 until October 31, 2050.

12. The Commission includes in the licence the conditions as recommended by CNSC staff in CMD 25-H6. The Commission delegates authority to CNSC staff with respect to the administration of licence condition 4.2, as recommended by CNSC staff in section 4.4 of CMD 25-H6. Licence conditions and the delegation of authority are further discussed in section 3.7 of this *Record of Decision*.

13. With this decision, the Commission directs CNSC staff to continue to report on Nordion's performance as part of the periodic regulatory oversight reports for uranium and nuclear substance processing facilities (UNSPF RORs). The Commission directs CNSC staff to inform the Commission, as part of the UNSPF RORs, of any changes made to Nordion's Licence Conditions Handbook. CNSC staff may bring any matter to the Commission's attention, at any time, as required.

14. The Commission directs that every 8 years of the licence period (i.e., in 2033 and 2041), Nordion shall provide a comprehensive performance update to the Commission on the conduct of its licensed activities. The update shall include information on:

- Nordion's safety and control measures with respect to the 14 safety and control areas (SCAs), including any program updates, and the implementation of codes and standards
- reportable events, high-risk incidents, and corrective actions implemented during the licence period
- planned operational or organizational changes, including anticipated building updates, such as to Cell 1, its Building Management Systems, and its electrical infrastructure
- Nordion's public and Indigenous engagement
- any other areas of regulatory interest such as cost recovery and financial guarantee

CNSC staff shall also report on its assessment of Nordion's performance over the same period.

15. These updates will be presented at public Commission meetings that will allow for the participation, both orally and in writing, of members of the public and Indigenous Nations and communities. The Commission intends that these public meetings will allow a meaningful opportunity to hear and discuss the views of members of the public and Indigenous Nations and communities.

16. The Commission acknowledges the commitments made by Nordion and CNSC staff with respect to fostering a positive relationship with Indigenous Nations and communities, such as in section 4.17 of CMD 25-H6.1, section 3.1 of CMD 25-H6, and during the hearing: see section 3.5 of this *Record of Decision*. The Commission expects Nordion and CNSC staff to continue their work to strengthen their relationships with Indigenous Nations and communities throughout the next licence period.

3.0 COMMISSION FINDINGS

17. In making its licensing decision, the Commission considered all the relevant submissions relating to Nordion's licence renewal application. The Commission

also considered the adequacy of Nordion's measures for protecting the environment, the health and safety of persons, national security and international obligations to which Canada has agreed.

18. The Commission's analysis is set out within the following sections of this *Record of Decision*:

- Section 3.1: Applicability of the *Impact Assessment Act*
- Section 3.2: Assessment of Nordion's licence renewal application
- Section 3.3: Summary of views of hearing participants
- Section 3.4: Nordion's safety and control measures with respect to the safety and control areas
- Section 3.5: Indigenous engagement and consultation
- Section 3.6: Other matters of regulatory importance
- Section 3.7: Licence length and conditions

3.1 Applicability of the *Impact Assessment Act*

19. In coming to its decision, the Commission is first required to determine whether any requirement under the IAA applies to this application and whether an impact assessment is required.

20. Pursuant to the IAA and the *Physical Activities Regulations*[13] made under it, impact assessments are to be conducted in respect of projects identified as having the greatest potential for adverse environmental effects in areas of federal jurisdiction. The proposed licence renewal does not include activities listed in the *Physical Activities Regulations* that require an impact assessment, or that meet the definition of a project on federal lands.

21. The Commission is satisfied that this application does not trigger any of the requirements under the IAA for an impact assessment. The Commission is also satisfied that there are no other applicable requirements of the IAA to be addressed in this matter.[14]

3.2 Assessment of Nordion's licence renewal application

22. On May 15, 2024, Nordion applied to the CNSC to renew its licence for a period of 25 years, with no changes to the licensed activities. On February 21, 2025, Nordion submitted an amendment to its original application with a revised list of supporting

[13] SOR/2019-285.
[14] The IAA can impose other requirements on federal authorities in respect of authorizing projects that are not designated as requiring an impact assessment, including projects that are to be carried out on federal lands, or projects outside of Canada. This licence renewal does not engage any such applicable IAA requirements.

documents.[15]

23. The Commission examined the completeness of Nordion's application, and the adequacy of the information submitted by Nordion, and finds that it meets the requirements under the NSCA, the *General Nuclear Safety and Control Regulations* (GNSCR),[16] and other applicable regulations made under the NSCA.

24. Section 3 of the GNSCR provides the information required for a licence application, and section 5 specifies the requirements for a licence renewal application. In addition, section 7 of the GNSCR provides that a licence renewal application may incorporate by reference any information that is included in a valid, expired or revoked licence.

25. In Attachment 1 of its application, Nordion submitted information required by the NSCA and its relevant regulations for a licence renewal application. Section 3 of CMD 25-H6.1 presents Nordion's rationale and justification for the proposed 25-year licence term, including an assessment of the potential impacts. Section 4 of CMD 25-H6.1 describes Nordion's programs and processes under each of the 14 SCAs, as well as information on its financial guarantee. In Attachment 2 of its application, Nordion submitted a summary of improvements made to its facility and programs since 2015, grouped into the relevant SCA. In Attachment 3 of its application, Nordion submitted supplementary information including a summary of large projects and significant activities anticipated for the proposed licence period.

26. CNSC staff submitted that Nordion's application met the regulatory requirements for a licence renewal application. CNSC staff reported that its assessment of Nordion's application included a completeness check, a sufficiency check, and a technical assessment against regulatory requirements.[17]

27. In its intervention, KFN expressed concern that the Commission does not have sufficient information to make an informed decision. KFN requested full disclosure regarding radioactive waste and environmental risks associated with Nordion's operations, including details on effluent streams, the nature and volume of the effluents, and the types of waste produced. KFN identified this as a fundamental gap in the record, contrary to paragraph 3(1)(j) of the GNSCR. KFN noted its previous requests for this information in its submissions for the 2021,[18] 2022,[19] and 2023[20] UNSPF RORs, as well as during BWXT Medical's application for a Class IB licence.[21] KFN expressed disappointment that the requested information remained unavailable at the time of the hearing. At the hearing, CNSC staff confirmed that it

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[15] The amendment includes a revised list of supporting documents, detailed in revised Appendix A and referenced in revised Attachment 1, which focus on key materials required for this licence renewal application.
[16] SOR/2000-202.
[17] In section B.2 of CMD 25-H6, CNSC staff submitted a summary of its assessment of Nordion's application on whether it contains sufficient information pursuant to the requirements under the GNSCR. In section B.3 of CMD 25-H6, CNSC staff provided a summary of its technical assessment of Nordion's application on whether it includes adequate safety and control measures to meet the applicable regulatory requirements.
[18] CMD 22-M35.4; attached in CMD 25-H6.11B.
[19] CMD 23-M35.3; attached in CMD 25-H6.11B.
[20] CMD 25-M10.3; attached in CMD 25-H6.11B.
[21] CMD 21-H5.20, H5.20A; attached in CMD 25-H6.11B.

had all the information required for it to make a recommendation on this licence renewal application.

28. The requested information is captured in the following documents, which are listed in Attachment 1 of Nordion's amended application and are subject to confidentiality:

- SE-LIC-001, *Management System for Safety*
- SE-RP-00, *Radiation Protection Manual – Ottawa Site*
- IS/SR 1057 Z000, *Final Safety Analysis Report for Cobalt Operations*
- SE-ENV-001, *Environmental Management System Manual*
- SE-ENV-015, *Nordion Environmental Protection Program*
- SE-LIC-009, *Preliminary Decommissioning Plan for Class 1B Facility* (KOB)
- REP-EHS-009, *Nordion Class 1B Facility Derived Release Limits*

29. KFN emphasized its concern regarding publicly available information and the CNSC's responsibility to ensure transparent dissemination of information.[22]

30. KFN also sought clarification on whether Nordion produces actinium-225 (Ac-225), along with details about the safety and operation of its irradiator facilities.[23] The Commission enquired about the scope of this licence renewal application. A representative from Nordion confirmed that the application pertains solely to Co-60 and does not include other isotopes.[24]

31. The Commission is satisfied that Nordion's application includes the necessary information for the renewal of its Class IB licence and has provided sufficient information for the Commission to render a decision on this matter.

3.3 Summary of views of hearing participants

32. In determining whether to renew Nordion's Class IB licence, the Commission gave careful consideration to all submissions and perspectives received, in accordance with its mandate and the scope of this hearing. The Commission appreciates the efforts and contributions of all hearing participants.

33. Nordion submitted that it is qualified to continue carrying on the licensed activities and that it would ensure the protection of people and the environment for the requested 25-year licence term. In support of this, Nordion reported the following:

[22] Transcript, June 4, 2025, pages 163-166, 194-196.
[23] CMD 25-H6.11, page 16.
[24] Transcript, June 4, 2025, page 231.

- it has implemented programs that meet applicable regulatory requirements across all 14 SCAs, which have been proven effective in protecting people and the environment over decades of operation
- it has consistently applied continuous improvement to its facility and programs and has committed to further enhancements throughout the upcoming licence period
- it anticipates the facility will operate beyond the 25-year term, with no foreseeable shutdown or decommissioning in the future

34. CNSC staff recommended that the Commission renew Nordion's licence for the Nordion facility for a period of 25 years, with a requirement for Nordion to provide two performance updates during the licence term to provide an opportunity for meaningful engagement. CNSC staff submitted that:

- Nordion's performance during the current licence period was satisfactory and consistently met regulatory requirements
- Nordion has programs, resources, and measures in place to ensure the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed, during the proposed licence period

35. A total of 10 interventions were received including five oral submissions and five written submissions (see Appendix A – List of Intervenors). Intervenors expressed views on the following:

- Nordion's qualification to carry out licensed activities
- the effectiveness of Nordion's safety and control measures in protecting the health and safety of persons and the environment, including
    - emergency response planning
    - environmental monitoring
    - waste management
- decommissioning planning
- the proposed licence period, including the adequacy of regulatory oversight and opportunities for engagement
- the availability and accessibility of public data
- the duty to consult, considering Canada's commitments under the *United Nations Declaration on the Rights of Indigenous Peoples*[25] (UN Declaration), with specific concerns related to:
    - the adequacy of Indigenous engagement and consultation

[25] The United Nations Department of Economic and Social Affairs, *United Nations Declaration on the Rights of Indigenous Peoples*, September 2007.

- the integration of Indigenous Knowledge and laws into the CNSC's application assessment
- funding and economic opportunities for Indigenous Nations and communities
- the transport and storage of radioactive materials through Algonquin territory

36. The issues raised by hearing participants, and their bearing on the Commission's analysis, are discussed in the appropriate subject-specific sections below. Issues raised by Indigenous Nations and communities are detailed in section 3.5 of this *Record of Decision*.

3.4 Nordion's safety and control measures with respect to the safety and control areas

37. The Commission examined Nordion's proposed safety and control measures and evaluated Nordion's performance in all 14 SCAs over the current licence period, based on information gathered from 2015 to the end of 2024.

38. Nordion submitted that it has implemented programs that meet applicable regulatory requirements across all 14 SCAs, which have proven effective in protecting people and the environment over decades of operation. Nordion has consistently applied continuous improvements to its facility and programs and has committed to further enhancements throughout the upcoming licence period. Nordion reported that the effectiveness of its current programs, along with the planned improvements, will ensure that a 25-year licence would not negatively impact the health and safety of people or the environment.

39. CNSC staff submitted that Nordion's existing programs and processes continue to meet applicable regulatory requirements and are sufficient to support commercial operations over the proposed 25-year licence term. In section 2 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's programs across each SCA. CNSC staff reported that Nordion's performance was "satisfactory" in all SCAs over the licence period. Specifically,

- all non-compliances have been closed and CNSC staff were satisfied with the corrective actions
- all events reported were of low safety significance, and Nordion's event notifications and follow-up reports were acceptable to CNSC staff
- the environmental and radiological risks remain low
- effluent quality and radiation doses were effectively controlled and kept well below regulatory limits
- Nordion's performance in the conventional health and safety SCA demonstrates that hazards and risks were managed and that activities were conducted safely

3.4.1 Management system

40. The management system SCA covers the framework that establishes the processes and programs required to ensure an organization achieves its safety objectives, continuously monitors its performance against these objectives, and fosters a healthy safety culture. Licence condition 2.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a management system.

41. Paragraph 3(d) of the *Class I Nuclear Facilities Regulations*[26] (CINFR) states that a licence application for a Class I nuclear facility shall contain "the proposed management system for the activity to be licensed, including measures to promote and support safety culture." Section 3 of the GNSCR outlines requirements that form the basis of a management system, which includes that a licence application shall contain the applicant's organizational management structure, including the internal allocation of functions, responsibilities and authority.

42. CNSC regulatory document[27] REGDOC-2.1.2, *Safety Culture*[28] sets out requirements and guidance for fostering a healthy safety culture and conducting safety culture assessments. CSA Group Standard N286, *Management System Requirements for Nuclear Facilities*[29] provides an overall management framework and direction to develop and implement sound management practices and controls for the licensing basis.

43. In section 4.1 of CMD 25-H6.1, Nordion provided the Commission with information on its management system, including the following areas:

- organization
- performance assessment, improvement and management review
- change management
- safety culture
- business continuity

44. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

45. Nordion has implemented a management system in accordance with CSA N286 to control licensed activities from the planning stage through to completion, both at the operational and corporate levels. It has also implemented an Environmental, Health and Safety (EHS) policy, which serves as the foundation of its EHS systems. Nordion's EHS committee conducts annual reviews of the management system and the environmental protection program (further discussed in section 3.4.9 of this

[26] SOR/2000-204.
[27] CNSC regulatory documents are typically referred to as REGDOCs
[28] CNSC Regulatory Document, REGDOC-2.1.2, *Safety Culture*, April 2018.
[29] CSA Group Standard, CSA N286, *Management System Requirements for Nuclear Facilities*, 2012 (R2022).

Record of Decision). Additionally, Nordion has established a joint EHS committee with BWXT Medical to address site-wide licensing and safety matters.[30] All changes to the facility, equipment, processes, documents, and procedures are subject to a formal change control process. Significant changes to the facility must be approved by Nordion's EHS committee. Nordion noted that it is also certified to the International Organization for Standardization (ISO) standard 9001, *Quality Management System*.

46. In section 2.1 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the management system SCA covering the following specific areas:

- management system
- organization
- performance assessment, improvement, and management review
- change management
- records management
- supply and contractor management
- safety culture

47. CNSC staff confirmed that Nordion's programs within the management system SCA met regulatory requirements and that there are no improvements proposed for this SCA during the proposed licence period.

48. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA. CNSC staff noted that no non-compliances were identified by CNSC staff.

49. The Commission asked for more information concerning Nordion's implementation of REGDOC-2.1.2. CNSC staff explained that licensees conduct gap analyses when implementing a new REGDOC or CSA standard. For this licence renewal application, CNSC staff identified one applicable requirement in REGDOC-2.1.2 — documenting a commitment to a healthy safety culture — which Nordion has completed. CNSC staff confirmed that Nordion's safety culture initiatives are acceptable, and that ongoing oversight is maintained through desktop reviews, inspections, and event reviews. [31]

50. The Commission asked whether any assessments or reviews had been conducted since Nordion's 2019 gap analysis for the implementation of REGDOC-2.1.2, to evaluate the effectiveness of any changes made. A Nordion representative reported on the company's ongoing efforts to strengthen its safety culture, including annual

[30] The EHS committees for each organization have the responsibility for activities under their respective licences. The joint EHS committee provides an opportunity to review and discuss site wide licensing and safety matters.
[31] Transcript, June 4, 2025, pages 97-100.

reviews of safety culture and safety programs through Nordion's EHS committee, and the investigation of all incidents, including near misses.[32]

51. Based on the information on record for this hearing, the Commission concludes that Nordion has an appropriate management system in place to carry on the activities that would be authorized by the proposed licence renewal. The Commission finds that Nordion's existing programs and processes related to the management system SCA meet regulatory requirements, including REGDOC-2.1.2 and CSA N286, and are adequate to support the continued operation of its facility.

3.4.2 Human performance

52. The human performance management SCA covers activities that enable effective human performance through the development and implementation of processes that ensure a sufficient number of licensee personnel are in all relevant job areas and have the necessary knowledge, skills, procedures and tools in place to safely carry out their duties. Licence condition 3.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a training program.

53. Paragraph 12(1)(a) of the GNSCR requires the licensee to ensure that there are sufficient qualified workers to carry on the licensed activity safely and in accordance with the NSCA, its regulations and the licence. Paragraph 12(1)(b) provides that the licensee must train workers to carry on the licensed activity in accordance with the Act, its regulations and the licence.

54. Paragraph 3(d.1) of the CINFR provides that a licence application must include information about the proposed human performance program for the activity to be licensed, including the measures to ensure workers' fitness for duty. Paragraphs 6(m) and 6(n) indicate that a licence application must include information on the proposed responsibilities, qualification requirements, training program, and measures for the requalification of workers, as well as on the results obtained through the application of the program for the recruitment, training and qualification of workers related to the operation and maintenance of the nuclear facility. Furthermore, Paragraph 14(2)(e) requires every licensee to keep a record of the status of each worker's qualifications, requalification and training, including the results of all tests and examinations completed in accordance with the licence.

55. Additionally, the licensee shall implement and maintain training programs for workers in accordance with the requirements set out in REGDOC-2.2.2, *Personnel Training*.[33]

56. In section 4.2 of CMD 25-H6.1, Nordion provided the Commission with information on its human performance management programs, including the following areas:

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[32] Transcript, June 4, 2025, pages 93-95.
[33] CNSC Regulatory Document, REGDOC-2.2.2, *Personnel Training*, Version 2, December 2016.

- human performance program
- personnel training

57. Nordion submitted that its programs and processes continue to comply with the licensing basis requirements in the current licence.

58. Nordion has implemented a performance management program to ensure that sufficient personnel with the required knowledge and skills are available, and that site security is maintained at all times. Nordion has adopted a systematic approach to its training, under which training for all employees – including Nuclear Energy Workers (NEWs) and non-NEWs – is regularly reviewed, designed, developed, documented, and managed to meet organizational requirements. Nordion also maintains records of training, qualifications, and experience. Nordion conducts training needs analysis following any high- or medium-risk EHS incident where training is identified as the root cause.[34]

59. In section 2.2 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the human performance management SCA covering personnel training.

60. CNSC staff confirmed that Nordion's programs within the human performance management SCA met regulatory requirements and that there are no improvements proposed for this SCA during the proposed licence period.

61. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA. CNSC staff confirmed that Nordion implemented satisfactory corrective actions to address its findings of non-compliance, which were related to internal training documentation.

62. The Commission enquired about Nordion's plan for knowledge management during the proposed 25-year licence period. A Nordion representative explained Nordion's training program, including knowledge transfer, monitoring of training record, and the plan to continuously improve the training program.[35]

63. Based on the information on record as described above, the Commission concludes that Nordion has adequate measures in place to manage human performance for the conduct of the licensed activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the human performance management SCA meet regulatory requirements, including REGDOC-2.2.2, and are adequate to support the continued operation of its facility.

[34] CMD 25-H6.1, section 4.2.
[35] Transcript, June 4, 2025, pages 59-61.

3.4.3 Operating performance

64. The operating performance SCA includes an overall review of the conduct of the licensed activities and the activities that enable effective performance.

65. Nordion's current licence includes two licence conditions related to the operating performance SCA:

- licence condition 4.1 requires Nordion to implement and maintain an operating program, which includes a set of operating limits
- licence condition 4.2 states that Nordion shall implement and maintain a program for reporting to the Commission or a person authorized by the Commission

66. Paragraph 6(d) of the CINFR provides that an application for a licence to operate a Class IB nuclear facility must include information on the proposed measures, policies, methods and procedures for operating and maintaining the nuclear facility.

67. REGDOC-3.1.2, *Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills*[36] sets out requirements and guidance for reports and notifications that licensees of Class IB nuclear facilities must submit to the CNSC.

68. In section 4.3 of CMD 25-H6.1, Nordion provided the Commission with information on its operating performance programs, including the following areas:

- conduct of licensed activities
- procedures
- operating limits and conditions

69. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

70. Nordion reported that all work at its facility is conducted in a planned and controlled manner through the use of procedures or work permits. Procedures are controlled in accordance with CSA N286. Safe operating limits and conditions are defined through the Final Safety Analysis Reports (FSARs), further discussed in section 3.4.4 of this *Record of Decision*. The Building Management System monitors the operating conditions of the facility to ensure activities remain within specifications and are carried out safely. Nordion regularly maintains and inspects structures, systems and components (SSCs). Nordion noted that incidents and non-conformances are identified through non-conformance procedures, investigations, and internal audits, with corrective actions issued as required. Nordion also maintains an inventory of non-production radioactive sources and material. Nordion conducts annual internal audits to verify compliance with applicable procedures and

[36] CNSC Regulatory Document, REGDOC-3.1.2, *Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills*, Version 1.1, July 2022.

requirements.[37]

71. Furthermore, in Attachment 3 of its application, Nordion submitted a summary of large projects and significant activities anticipated during the proposed licence period, including:

- completion and use of a new hot cell, Cell 1
- upgrade of electrical infrastructure
- upgrade of Building Management Systems

72. Through continued preventative maintenance and planned replacement of capital assets, Nordion expects the facility and processing equipment to have an operational life extending beyond the requested licence period of 25 years.

73. In section 2.3 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the operating performance SCA covering the following specific areas:

- conduct of licensed activities
- procedures
- reporting and trending
- reporting of sealed sources

CNSC staff confirmed that Nordion's programs within the operating performance SCA met regulatory requirements. CNSC staff noted that Nordion updated its sealed source reporting in alignment with the *IAEA Guidance on the Management of Disused Radioactive Sources*.[38]

74. CNSC staff submitted that it did not expect Nordion's anticipated projects and significant activities to have any impact on safety. Occupational and industrial safety aspects of Nordion's operations are further discussed under section 3.4.8 of this *Record of Decision*.

75. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA, and there were no major findings. CNSC staff noted that all events reported by Nordion were of low safety significance, and Nordion had implemented satisfactory corrective actions.

76. Noting that 77 events were reported during the current licence term,[39] the Commission enquired about Nordion's process for following up on reported events. A Nordion representative explained that for any reportable event, a comprehensive root cause analysis is conducted to identify the cause and determine appropriate

[37] CMD 25-H6.1, section 4.3.
[38] *Guidance on the Management of Disused Radioactive Sources*, IAEA, April 2018.
[39] This includes the period during which Nordion's medical isotopes business — now divested to BWXT Medical — was still part of Nordion's operations.

corrective actions. These actions are subsequently reviewed by Nordion's leadership and the EHS department at Sotera Health.[40, 41]

77. The Commission asked CNSC staff to describe its oversight of Nordion's response to reportable events over the current licence period. CNSC staff outlined its review process for reportable events, which includes evaluating Nordion's preliminary and 21-day event reports,[42] assessing corrective actions, and conducting inspections to verify the implementation of those actions. CNSC staff emphasized that its assessment focused on Nordion's compliance with the relevant regulatory requirements, including REGDOC-3.1.2.[43]

78. Based on the information on record as described above, the Commission concludes that Nordion's existing programs and processes related to the operating performance SCA meet regulatory requirements, including REGDOC-3.1.2, and are adequate to support the continued operation of its facility.

3.4.4 Safety analysis

79. The safety analysis SCA covers the maintenance of the safety analysis that supports the overall safety case for the facility. Safety analysis is a systematic evaluation of the potential hazards associated with the conduct of a proposed activity or facility and considers the effectiveness of preventative measures and strategies in reducing the effects of such hazards. Licence condition 5.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a safety analysis program.

80. Paragraph 6(i) of the CINFR provides that an application for a licence to operate a Class IB nuclear facility must include a final safety analysis report demonstrating the adequacy of the design of the nuclear facility.

81. REGDOC-2.4.4, *Safety Analysis for Class IB Nuclear facilities*[44] sets out requirements and provides guidance for applicants and licensees on how to demonstrate the safety of a Class IB nuclear facility, including information relating to the safety analysis program, the conduct of a safety analysis, and safety analysis documents, records and reporting.

82. In section 4.4 of CMD 25-H6.1, Nordion provided the Commission with information on its safety analysis programs, including fire hazard analysis. Nordion submitted that its programs and processes related to the safety analysis SCA continued to comply with the licensing basis requirements in the current licence.

83. Nordion reported that the safety analysis of the facility and processes are documented in the FSARs, which serve as evidence that safety requirements have

[40] Sotera Health LLC (Sotera Health) is Nordion's parent company.
[41] Transcript, June 4, 2025, pages 95-97.
[42] Required under paragraph 29(1)(b) and subsection 29(2) of the GNSCR. See REGDOC-3.1.2 for further guidance.
[43] Transcript, June 4, 2025, pages 97-100.
[44] CNSC Regulatory Document, REGDOC-2.4.4, *Safety Analysis for Class IB Nuclear facilities*, October 2022.

been met and that the facility, equipment, and operations are safe.[45] Nordion explained that its FSARs are approved by its EHS committee prior to the implementation of a new process or the unrestricted start-up of production following modifications. Nordion noted that its FSARs were revised in 2024 and submitted to the CNSC for review.

84. Nordion's Fire Hazard Analysis evaluates potential fire-related risks to personnel safety, property, operations, and the environment, and is conducted every 5 years. Nordion reported that its 2021 Fire Hazard Analysis remained valid.[46]

85. In section 2.4 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the safety analysis SCA covering the following specific areas:

- deterministic safety analysis
- hazard analysis

86. CNSC staff confirmed that Nordion's programs within the safety analysis SCA met regulatory requirements and that there are no improvements proposed for this SCA during the proposed licence period.

87. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and rated it as satisfactory.

88. Based on the information on the record as described above, the Commission concludes that Nordion has an adequate safety analysis program in place to accommodate for the licensed activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the safety analysis SCA meet regulatory requirements, including REGDOC-2.4.4, and are adequate to support the continued operation of its facility.

3.4.5 Physical design

89. The physical design SCA relates to activities that impact the ability of structures, systems and components to meet and maintain its design basis given new information arising over time and taking changes in the external environment into account. Licence condition 6.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a design program.

90. Paragraph 3(1)(d) of the GNSCR requires that a licence application shall contain a description of any nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence. Paragraphs 3(a) and 3(b) of the CINFR indicate that a licence application for a Class IB nuclear facility must include a description of

[45] Under the Licence Conditions Handbook, Nordion is required to review and revise its risk assessments at least every 5 years to ensure that new risks and lessons learned are incorporated into an updated safety analysis report.
[46] CMD 25-H6.1, section 4.4.

the site of the activity to be licensed, as well as plans showing the location, perimeter, areas, structures and systems of the nuclear facility. Paragraphs 6(a) and 6(b) of the CINFR provide that an application for a licence to operate a Class IB nuclear facility includes a description of the structures, systems and equipment at the nuclear facility, including their design and their design operating conditions.

91. In section 4.5 of CMD 25-H6.1, Nordion provided the Commission with information on its physical design programs, including the following areas:

- design governance
- control facilities

92. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

93. Nordion submitted that its design control program ensures that the design of its facility — including buildings, systems, and equipment — complies with established codes, standards, and all applicable requirements. Nordion ensures that changes to existing design are controlled, and any external firms providing maintenance or calibration services are qualified to perform the work. Nordion noted that its infrastructure, such as hot cells and storage pools, is designed to provide passive protection for radioactive material and in the event of an emergency, the facility can be remotely monitored to assess conditions. In addition, multiple backup power supplies are in place to ensure that safety-critical systems remain continuously operational.[47]

94. In section 2.5 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the physical design SCA covering the following specific areas:

- design governance
- facility design

95. CNSC staff confirmed that Nordion's programs within the physical design SCA met regulatory requirements and that there are no improvements proposed for this SCA during the proposed licence period.

96. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and rated it as satisfactory.

97. Based on the information on record, as described above, the Commission concludes that Nordion has an adequate physical design program in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the physical design SCA meet regulatory requirements and are adequate to support the continued operation of its facility.

[47] CMD 25-H6.1, section 4.5.

98. The Commission takes note of Nordion's anticipated completion and use of Cell 1, update to its Building Management Systems, and upgrade of its electrical infrastructure during the proposed licence term.

3.4.6 Fitness for service

99. The fitness for service SCA covers activities that impact the physical condition of structures, systems and components to ensure that they remain effective over time. This area includes programs that ensure all equipment is available to perform its intended design function when called upon to do so. Licence condition 7.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a fitness for service program.

100. Paragraph 6(d) of the CINFR requires that an application for a licence to operate a Class IB nuclear facility contain the proposed measures, policies, methods and procedures for operating and maintaining the nuclear facility.

101. The following codes and standards include requirements and guidance relevant to the fitness for service SCA:

- the *National Building Code of Canada*[48]
- the *National Fire Code of Canada*[49]
- specific aspects of CSA N286
- specific aspects of CSA N393, *Fire protection for facilities that process, handle, or store nuclear substances*[50]

102. In section 4.6 of CMD 25-H6.1, Nordion provided the Commission with information on its fitness for service programs. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

103. Nordion reported that it has implemented programs and processes to ensure that its facility and equipment remain fit for service through the facility maintenance plan and the instrument maintenance plan. SSCs important to safety are identified through the FSAR program. Calibration and maintenance activities are scheduled, controlled and recorded through Nordion's Advanced Maintenance Management System. Pressure vessels and boilers are authorized under the Technical Standards and Safety Authority (TSSA), with required inspections conducted by Nordion's insurer who provides the inspection reports to the TSSA. Unscheduled repairs are reviewed annually to identify trends in equipment failures. Recurring failures undergo further analysis to determine necessary corrective actions. As part of its

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[48] National Research Council Canada, *National Building Code of Canada*, 2020.
[49] National Research Council Canada, *National Fire Code of Canada*, 2020.
[50] CSA Group Standard, CSA N393, *Fire protection for facilities that process, handle, or store nuclear substances*, 2022.

annual business plan review, Nordion also evaluates and plans for aging equipment.[51]

104. In section 2.6 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the fitness for service SCA covering the following specific areas:

- equipment fitness for service/equipment performance
- maintenance

105. CNSC staff confirmed that Nordion's programs within the fitness for service SCA met regulatory requirements and that there are no improvements proposed for this SCA during the proposed licence period.

106. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA. CNSC staff noted that no non-compliances were identified by CNSC staff.

107. Based on the information on record as described above, the Commission concludes that Nordion has adequate fitness for service measures in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the fitness for service SCA meet regulatory requirements and are adequate to support the continued operation of its facility.

3.4.7 Radiation protection

108. Radiation protection includes measures for protecting the health and safety of persons from hazards associated with ionizing radiation. Radiation protection ensures that contamination levels and radiation doses received by individuals are monitored, controlled, and maintained as low as reasonably achievable (ALARA), while taking into consideration social and economic factors. Licence condition 8.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a radiation protection program, which includes a set of action levels[52] and reporting of exceedance within seven days.

109. Section 4 of the *Radiation Protection Regulations*[53] requires licensees to implement a radiation protection program. As part of this program, licensees must keep effective and equivalent doses received by, and committed to, persons ALARA, taking into account social and economic factors, and ascertain the quantity and concentration of any nuclear substance released as a result of the licensed activity. Sections 13, 14 and 15 of the *Radiation Protection Regulations* provide the

[51] CMD 25-H6.1, section 4.6.
[52] As defined in section 6 of the *Radiation Protection Regulations*, action level means a specific dose of radiation or other parameter that, if reached, may indicate a loss of control of part of a licensee's radiation protection program and triggers a requirement for specific action to be taken.
[53] SOR/2000-203.

regulatory dose limits to workers and the general public.[54] Paragraphs 6(e) and 6(h) of the CINFR require that an application for a licence to operate a Class IB nuclear facility contains the proposed procedures for handling, storing, loading and transporting nuclear substances and hazardous substances, as well as the effects on the environment and the health and safety of persons that may result from the operation and decommissioning of the nuclear facility, and the measure that will be taken to prevent or mitigate those effects.

110. In section 4.7 of CMD 25-H6.1, Nordion provided the Commission with information on its radiation protection programs, including the following areas:

- ALARA principle
- radiation monitoring
- public doses
- contamination control

111. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

112. Nordion reported on its personnel monitoring program, which controls radiation exposure for employees, including NEWs who regularly work in the active area, NEWs who visit the active area irregularly, and contractor NEWs.[55] Radiation doses to employees are reviewed and assessed in accordance with the ALARA principle. Nordion noted that it established action levels for radiation exposure acceptable to the CNSC, and that it reports any exceedances to the CNSC. Additionally, administrative levels — internal control thresholds set below the action levels — are in place to indicate conditions that may lead to increased doses, enabling Nordion to take corrective measures and ensure doses remain low. In Tables 2 and 3, Nordion submitted the annual doses to its NEWs, contractor NEWs, and the public during the current licence period. All doses are well below the limits set by the *Radiation Protection Regulations*.[56]

113. Nordion also reported on its contamination control program including the nuclear ventilation system,[57] routine monitoring, and air sampling. Contamination incidents are investigated and documented as contamination incident reports.[58]

114. In section 2.7 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the radiation protection SCA covering the following specific areas:

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[54] The effective dose limit for NEWs is 50 millisieverts (mSv) per year and 100 mSv over a 5-year period. The equivalent dose limit for members of the public is 1 mSv per year.
[55] Contractor NEWs are trained as NEWs but are subject to the regulatory dose limit of non-NEWs, and are not permitted to handle radioactive material at Nordion.
[56] CMD 25-H6.1, section 4.7.
[57] Nordion's nuclear ventilation system ensures that there are sufficient pressure differentials to control the flow in the direction of less contaminated zones to zones of higher potential contamination to capture any Co-60 particulate.
[58] CMD 25-H6.1, section 4.7.

- application of ALARA
- worker dose control
- radiation protection program performance
- radiological hazard control
- estimated dose to the public

115. CNSC staff assessed that Nordion's programs within the radiation protection SCA met regulatory requirements and that there are no changes anticipated for this SCA in the near future. CNSC staff submitted that, over the current licence period, worker doses were consistently maintained well below regulatory limits and adhered to the ALARA principle.

116. CNSC staff reported findings of non-compliance identified during inspections in 2017 and 2023, which included the absence of a process for investigating lost dosimeters, workers not wearing gloves while collecting filter discs, incomplete records related to the radiation protection program, and survey meters in operation with out-of-date calibration stickers. CNSC staff noted that Nordion had implemented satisfactory corrective actions to address these findings. CNSC staff also reported one action level exceedance, which Nordion responded to by implementing satisfactory corrective actions.

117. Based on the information on record, as described above, the Commission concludes that Nordion has a radiation protection program in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the radiation protection SCA meet regulatory requirements, including the *Radiation Protection Regulations*, and are adequate to support the continued operation of its facility.

3.4.8 Conventional health and safety

118. The conventional health and safety SCA covers the implementation of a program to manage workplace safety hazards and to protect workers. Licence condition 9.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a conventional health and safety program.

119. Paragraph 3(f) of the CINFR provides that a licence application for a Class IB nuclear facility must include a description of the proposed worker health and safety policies and procedures. Paragraph 29(1)(h) of the GNSCR requires licensees to report to the CNSC on serious illnesses or injuries incurred or possibly incurred as a result of licensed activities.

120. Nordion's activities in relation to the conventional health and safety SCA must comply with the *Canada Labour Code*[59] and the associated *Canada Occupational Health and Safety Regulations*.[60]

121. In section 4.8 of CMD 25-H6.1, Nordion provided the Commission with information on its conventional health and safety programs, including general considerations. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

122. Nordion has established an occupational health and safety program to prevent, manage, and respond to potential or actual hazards or emergencies in the workplace. The program performance is reviewed annually, with targets set each year for medical treatment incidents and lost time incidents. Conventional health and safety performance is also reviewed on a monthly basis. Additionally, Nordion has a reporting system in place to capture potential accidents through unsafe conditions and near misses, and employees are encouraged to report such incidents.[61]

123. In section 2.8 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the conventional health and safety SCA covering the following specific areas:

- performance
- practices
- awareness

124. CNSC staff confirmed that Nordion's programs within the conventional health and safety SCA met regulatory requirements and that there are no improvements proposed for this SCA during the proposed licence period.

125. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and rated it as satisfactory. A total of seven lost-time injuries were reported, for which Nordion had implemented satisfactory corrective actions.

126. The Commission asked for more information on Nordion's lost-time injuries, including comparisons to other industrial sites. Nordion representatives explained that most of the injuries were related to slips, trips, and ergonomic strain – particularly from frequent use of manipulators and handling heavy objects as part of daily tasks. To address these issues, Nordion has focused on increasing situational awareness and implementing a formal ergonomic program. Nordion also started conducting root cause analyses for every lost-time injury and sharing lessons learned across business units. Additionally, Nordion has introduced a formal supervisory observation program to ensure safe operations, gain insight into work practices, and identify opportunities for improvement.[62]

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[59] R.S.C., 1985, c. L-2.
[60] SOR/86-304.
[61] CMD 25-H6.1, section 4.8.
[62] Transcript, June 4, 2025, pages 80-84.

127. Based on the information on record, as described above, the Commission concludes that Nordion has an adequate conventional health and safety program in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the conventional health and safety SCA meet regulatory requirements and are adequate to support the continued operation of its facility.

3.4.9 Environmental protection

128. The environmental protection SCA covers programs that identify, control and monitor all releases of radioactive and hazardous substances and effects on the environment from facilities or as the result of licensed activities. Licence condition 10.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain an environmental protection program, which includes a set of action levels and reporting of exceedance within seven days.

129. In accordance with the NSCA, licensees are required to make adequate provision for the protection of the environment. Paragraphs 12(1)(c) and (f) of the GNSCR require each licensee to take all reasonable precautions to protect the environment and the health and safety of persons, and to control the release of radioactive nuclear substances and hazardous substances within the site of the licensed activity and into the environment. The *Radiation Protection Regulations* prescribe dose limits for the public, which, pursuant to subsection 1(3), are 1 millisievert (mSv) per calendar year (mSv/y).

130. REGDOC-2.9.1, *Environmental Principles, Assessments, and Protection Measures*[63] describes the CNSC's principles of environmental protection, the scope of an environmental review, the roles and responsibilities associated with an environmental review, as well as the CNSC's requirements and guidance for developing environmental protection measures, including an environmental risk assessment (ERA) where required.

131. The CSA Group N288 series of standards, including the following, provides requirements and guidance for the environmental management of nuclear facilities:

- CSA N288.1, *Guidelines for calculating derived release limits for radioactive material in airborne and liquid effluents for normal operation of nuclear facilities,*[64] provides guidelines for calculating derived release limits
- CSA N288.4, *Environmental monitoring programs at nuclear facilities and uranium mines and mills,*[65] provides guidance on the design and operation of

[63] CNSC Regulatory Document, REGDOC-2.9.1, *Environmental Principles, Assessments and Protection Measures*, Version 1.2, April 2017.
[64] CSA Group Standard, CSA N288.1, *Guidelines for calculating derived release limits for radioactive material in airborne and liquid effluents for normal operation of nuclear facilities*, 2014 (R2019).
[65] CSA Group Standard, CSA N288.4, *Environmental monitoring programs at nuclear facilities and uranium mines and mills*, 2010 (R2015).

environmental monitoring programs for nuclear facilities

- CSA N288.5, *Effluent monitoring programs at Class I nuclear facilities and uranium mines and mills*,[66] provides guidelines on the design, implementation, and management of an effluent monitoring program
- CSA N288.6, *Environmental risk assessments at Class I nuclear facilities and uranium mines and mills*,[67] provides guidance on ERAs for Class I nuclear facilities and uranium mines and mills
- CSA N288.7, *Groundwater protection programs at Class I nuclear facilities and uranium mines and mills*,[68] provides requirements and guidance for the design, implementation, and management of a groundwater protection program to manage risks posed to the environment or the health and safety of humans and non-human biota from groundwater
- CSA N288.8, *Establishing and implementing action levels for releases to the environment from nuclear facilities*,[69] provides requirements and guidance to develop and implement action levels for releases from a final discharge point at nuclear facilities

132. The City of Ottawa's Sewer Use By-law[70] provides release limits to the municipal sanitary sewer.

133. In section 4.9 of CMD 25-H6.1, Nordion provided the Commission with information on its environmental protection programs, including the following areas:

- Environmental Management System
- effluent and emission control, including airborne and liquid effluent
- assessment and monitoring
- protection of people
- ERA

134. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence. In addition, Nordion's Environmental Management System is certified under ISO 14001, *Environmental management systems – Requirements with guidance for use*.[71]

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[66] CSA Group Standard, CSA N288.5, *Effluent monitoring programs at Class I nuclear facilities and uranium mines and mills*, 2011 (R2021).
[67] CSA Group Standard, CSA N288.6, *Environmental risk assessments at Class I nuclear facilities and uranium mines and mills*, 2012 (R2017).
[68] CSA Group Standard, CSA N288.7, *Groundwater protection programs at Class I nuclear facilities and uranium mines and mills*, 2015 (R2020).
[69] CSA Group Standard, CSA N288.8, *Establishing and implementing action levels for releases to the environment from nuclear facilities*, 2017 (R2022).
[70] City of Ottawa, *Sewer Use* (By-law No. 2003-514).
[71] ISO Standard, ISO 14001, *Environmental management systems – Requirements with guidance for use*, 2004.

135. Nordion submitted that its environmental protection program outlines the programs and processes to ensure safety and uphold the ALARA principal in relation to airborne and liquid effluent, environmental dosimetry and contamination, hazardous chemical storage and handling, and waste management and disposal. The production facilities have been designed and operated to ensure that air and water emissions remain within limits and to prevent the release of radioactive waste or hazardous chemicals into municipal solid waste or sewer systems. Nordion explained that production operations are conducted within hot cells or fume-hoods, and ventilated air from the containment systems is filtered through roughing and high efficiency particulate air filters. A nuclear ventilation system is also in place to prevent the release of radioisotopes and other hazardous materials into the atmosphere.[72]

136. Nordion submitted that its environmental monitoring program tracks and measures effluent releases and potential environmental contamination. Nordion reported that its airborne and liquid effluent releases were at or below 0.1% of the derived release limits specified in its Licence Conditions Handbook, which are based on the public dose limit of 1.0 mSv/year. Throughout the current licence term, no detectable quantities of Co-60 were found in Nordion's soil or groundwater samples. Additionally, measured doses from Nordion's environmental thermoluminescent dosimeters (TLDs) remained below the 1 mSv/year limit. Nordion also confirmed that its 2022 ERA remained adequate.[73]

137. In section 2.9 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the environmental protection SCA covering the following specific areas:

- ERA
- effluent and emissions control (releases)
- assessment and monitoring
- protection of people

138. CNSC staff assessed that Nordion's programs within the environmental protection SCA met regulatory requirements and that Nordion continued to implement and maintain effective environmental protection measures to adequately protect the environment and the health of people living in and around the Nordion facility over the current licence period. CNSC staff confirmed that radiological and non-radiological releases from the Nordion facility were below established limits and posed no risks to human health and the environment.[74]

139. CNSC staff reported that, while no major changes were anticipated for this SCA in the proposed licence term, Nordion is expected to implement REGDOC-2.9.2,

[72] CMD 25-H6.1, section 4.9.
[73] CMD 25-H6.1, section 4.9.
[74] Release data for nuclear facilities is available in the Radionuclide Release Datasets webpage on the CNSC's Open Government Portal, https://open.canada.ca/data/en/dataset/6ed50cd9-0d8c-471b-a5f6-26088298870e, and includes annual estimated public doses from nuclear facilities. Effluent and environmental monitoring results for Nordion is also available in the Regional Information and Monitoring Network webpage on the CNSC's Open Government Portal, https://www.cnsc-ccsn.gc.ca/eng/resources/environmental-protection/rimnet/.

Environmental Protection: Controlling Releases to the Environment,[75] which was published in 2024, along with newer versions of CSA N288.1, N288.4, N288.5, N288.6 and N288.7. Nordion is also expected to submit a revised ERA in 2027, in accordance with the 2022 version of CSA N288.6.

140. To complement its ongoing compliance activities, the CNSC has implemented its Independent Environmental Monitoring Program (IEMP). CNSC staff reported that the IEMP results for the Nordion site[76] in 2016, 2018, and 2023 indicated that persons and the environment in the vicinity of the Nordion facility were protected.

141. The Commission requested further information on Nordion's groundwater monitoring program. A Nordion representative explained that prior to the release of air and liquid from the facility, Nordion conducts measurements to ensure emissions remain within the limits set by its licence conditions. Nordion also performs annual sampling and analysis of soil and groundwater around the facility, with the results included in its annual compliance report. In addition, Nordion periodically sends samples to an independent laboratory — typically every few years — for external analysis. The representative noted that, over the years, these samples have consistently shown background levels of radioisotopes.[77]

142. CNSC staff reported that it reviews the results from Nordion's annual groundwater and soil monitoring for both radionuclides and non-radioactive contaminants, and that it was satisfied with the sampling frequency and findings. CNSC staff noted that the CNSC's regulatory framework allows for flexibility in adjusting sampling parameters — such as frequency, targets, and spatial extent — and that annual compliance reports serve as regular checkpoints in this oversight process. Additional review opportunities are provided through updates to the ERA, which is revised every five years.[78]

143. Regarding public doses, the Commission enquired about the definition of the most exposed individual and whether there were any expected changes over the proposed licence period. A Nordion representative explained that the maximum dose refers to the highest estimated dose to a theoretical receptor resulting from releases, calculated using derived release limit estimations. This method has proven to be sufficiently conservative, based on annual comparisons with actual release data. The Nordion representative also noted that the calculation is reviewed every five years to ensure it remains appropriate for Nordion's operations and reflects any changes around the facility, such as new or altered receptors.[79]

144. CNSC staff added that Nordion's ERA includes human health risk assessment, which informs the selection of critical receptors. CNSC staff confirmed that the receptors were appropriately selected. CNSC staff also noted that the ERA is

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[75] CNSC Regulatory Document, REGDOC-2.9.2: *Environmental Protection: Controlling Releases to the Environment*, March 2024.
[76] *The CNSC's Independent Environmental Monitoring Program: Nordion and BWXT Medical*, retrieved from the CNSC's website: https://www.cnsc-ccsn.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/nordion/.
[77] Transcript, June 4, 2025, pages 84-85.
[78] Transcript, June 4, 2025, pages 85-87.
[79] Transcript, June 4, 2025, pages 88-89.

publicly available on Nordion's website, and that public dose information is reported annually through the RORs.[80]

145. The Commission asked how the empirical doses measured using TLDs compared to the calculated doses, and whether the results were consistent. A Nordion representative explained that these are 2 separate programs that are not linked. The TLD program was implemented as a good practice to provide an additional level of confidence; however, it is not considered a formal environmental monitoring program under CSA standards. CNSC staff noted that Nordion's TLDs monitor environmental gamma radiation around the facility, and the results were well below the annual public dose limit of 1 mSv/y.[81]

146. Based on the information on record, as described above, the Commission concludes that Nordion has an environmental protection program in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the environmental protection SCA meet regulatory requirements, including REGDOC-2.9.1 and CSA N288-series standards, and are adequate to support the continued operation of its facility.

147. The Commission takes note of Nordion's plan to implement the 2022 edition of CSA N288.6 in its 2027 ERA, as well as to implement REGDOC-2.9.2 and newer versions of CSA N288.1, N288.4, N288.5, and N288.7.

3.4.10 Emergency management and fire protection

148. The emergency management and fire protection SCA covers emergency plans and emergency preparedness programs that exist for emergencies and for non-routine conditions.

149. Nordion's current licence includes 2 licence conditions related to the emergency management and fire protection SCA:

- licence condition 11.1 requires Nordion to implement and maintain an emergency preparedness program
- licence condition 11.2 requires Nordion to implement and maintain a fire protection program

150. Paragraph 12(1)(c) of the GNSCR states that the licensee shall "take all reasonable precautions to protect the environment, preserve the health and safety of persons and maintain the security of nuclear facilities and of nuclear substances", while paragraph 12(1)(f) states that the licensee shall "take all reasonable precautions to control the release of radioactive nuclear substances or hazardous substances within the site of the licensed activity and into the environment of the licensed activity."

[80] Transcript, June 4, 2025, pages 90-93.
[81] Transcript, June 4, 2025, pages 90-91.

151. Paragraph 6(k) of the CINFR requires that an application for a licence to operate a Class IB nuclear facility must include information on the licensee's proposed measures to prevent or mitigate the effects of accidental releases of nuclear substances and hazardous substances on the environment, the health and safety of persons and the maintenance of national security.

152. REGDOC-2.10.1, *Nuclear Emergency Preparedness and Response*,[82] sets out the CNSC's requirements and guidance for emergency preparedness and applies to licensees and licence applicants for Class IB nuclear facilities.

153. CSA N393 provides the minimum fire protection requirements for the design, construction, commissioning, operation, and decommissioning of facilities that process, handle, or store nuclear substances. The *National Building Code of Canada* and the *National Fire Code of Canada* also provide requirements for fire protection.

154. In section 4.10 of CMD 25-H6.1, Nordion provided the Commission with information on its emergency management and fire protection programs. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

155. Nordion explained that it has implemented an emergency preparedness program to address a range of potential emergency scenarios, both onsite and off-site. Emergency response plans have been developed, aimed at minimizing potential EHS impacts. These plans include steps for notifying the surrounding community and businesses and are tested on a five-year cycle. An Emergency Response Planning Committee meets regularly to assess Nordion's emergency planning needs, coordinate response exercises and drills, and review the emergency response plans and procedures. Nordion also maintains active collaboration with local fire and police departments by conducting regular orientation sessions and inviting local emergency response organizations to participate in drills. In addition, Nordion has implemented a Fire Safety Plan and a Fire Protection Program designed to reduce the likelihood and consequences of fire-related incidents. This includes the maintenance of a Fire Hazard Analysis.[83]

156. In section 2.10 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the emergency management and fire protection SCA covering the following specific areas:

- nuclear emergency preparedness and response
- fire protection

157. CNSC staff assessed that Nordion's programs within the emergency management and fire protection SCA met regulatory requirements. CNSC staff noted that there are no major changes anticipated for this SCA in the near future.

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[82] CNSC Regulatory Document, REGDOC-2.10.1, *Nuclear Emergency Preparedness and Response*, Version 2, February 2016.
[83] CMD 25-H6.1, section 4.10.

158. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and rated it as satisfactory. CNSC staff noted that Nordion conducted 3 emergency exercises in 2016, 2019 and 2023, and that all identified deficiencies had been addressed. CNSC staff also reported on its inspection in 2017, confirming that all findings of non-compliance had been resolved. With respect to fire protection, CNSC staff noted that Nordion had addressed the non-compliant findings from a 2024 inspection.

159. The Commission asked how Nordion would maintain an effective emergency response system over the proposed licence term. Nordion representatives responded that the company regularly reviews and updates its key programs, including emergency response, environmental protection, and safety cases. Nordion also works closely with the municipality and its various services, including local emergency departments. CNSC staff outlined its assessment of Nordion's off-site emergency preparedness as a Class IB facility. CNSC staff confirmed that there are no off-site impacts, and that the Nordion site has a robust emergency planning program that meets regulatory requirements.[84]

160. Based on the information on record, as described above, the Commission concludes that Nordion has adequate emergency management and fire protection programs in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the emergency management and fire protection SCA meet regulatory requirements, including REGDOC-2.10.1 and CSA N393, and are adequate to support the continued operation of its facility.

3.4.11 Waste management

161. The waste management SCA covers internal waste-related programs that form part of the facility's operations up to the point where the waste is removed from the facility to a separate waste management facility. It also covers the planning for decommissioning.

162. Nordion's current licence includes 2 licence conditions related to the waste management SCA:

- licence condition 12.1 requires Nordion to implement and maintain a waste management program
- licence condition 12.2 requires Nordion to implement and maintain a decommissioning strategy

163. Paragraph 3(1)(j) of the GNSCR provides that a licence application must include the name, quantity, form, origin and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed, including wastes that may be stored, managed, processed, or disposed of at the site of the activity to be licensed, and the proposed method for managing and disposing of that waste.

[84] Transcript, June 4, 2025, pages 65-70.

164. REGDOC-2.11.1, *Waste Management, Volume I: Management of Radioactive Waste*,[85] sets out the CNSC's requirements and guidance for managing radioactive waste.

165. In section 4.11 of CMD 25-H6.1, Nordion provided the Commission with information on its waste management programs, including the following areas:

- general considerations
- waste characterization
- waste minimization
- waste management practises
- decommissioning plan (discussed under section 3.6.3 of this *Record of Decision*)

166. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

167. Nordion explained that its waste management programs handle radioactive, hazardous and non-hazardous waste. All radioactive waste is stored and segregated in a designated area before being sent to an authorized radioactive waste management facility. Waste diversion programs are used to divert waste below the unconditional clearance levels[86] to conventional waste disposal methods, such as landfill. Through its Co-60 recycling program, Nordion reuses returned Co-60 sealed sources to manufacture new sealed sources.[87] Non-radioactive chemical waste is collected by a licensed waste disposal company for treatment and/or disposal. Nordion has also established programs for managing non-hazardous waste, including targets and initiatives aimed at reducing landfill disposal, and conducts annual audits to evaluate the effectiveness of its diversion programs.[88]

168. In section 2.11 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the waste management SCA covering the following specific areas:

- waste characterization/waste minimization
- waste management practices
- decommissioning plan (discussed under section 3.6.3 of this *Record of Decision*)

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[85] CNSC Regulatory Document, REGDOC-2.11.1, *Waste Management, Volume I: Management of Radioactive Waste*, January 2021.
[86] An unconditional clearance level is the activity concentration of a radioactive substance below which the material is considered safe for release from regulatory control. See full definition in the *Nuclear Substances and Radiation Devices Regulations*, SOR/2000-207.
[87] Waste from other radioisotope licensees is not transferred to Nordion for disposal. Spent sealed sources may be returned to Nordion for recycling or other end-of-life management.
[88] CMD 25-H6.1, section 4.11.

169. CNSC staff assessed that Nordion's programs within the waste management SCA met regulatory requirements. CNSC staff noted that there are no changes anticipated for this SCA in the near future but expected Nordion to review and update the decommissioning plan on a five-year cycle as documented in the proposed Licence Conditions Handbook. CNSC staff noted that Nordion's next submission is due in 2027.

170. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and rated it as satisfactory.

171. The Commission enquired about the volume and percentage of radioactive waste generated by Nordion, as well as the disposal facilities used. A Nordion representative explained that two waste streams are produced at the facility: in-cell waste and general active area waste.[89] On average, Nordion generates approximately 7 cubic metres of in-cell waste and 49 cubic metres of general active area waste annually. The Nordion representative noted that Nordion's radioactive waste is disposed of at licensed Canadian waste facilities however, due to commercial agreements, Nordion would not disclose the names of the facilities.[90]

172. KFN raised concerns regarding the transportation and storage of nuclear waste at Canadian Nuclear Laboratories' Chalk River Laboratories (CRL), emphasizing the environmental impacts associated with the accumulation of radioactive materials. KFN requested the disclosure of information regarding the radioactive waste (including Co-60 and technetium-99) that has been transferred to CRL, as well as the associated environmental risks.

173. The Commission asked Nordion to elaborate on the types of waste being produced and the extent to which further details could be provided. A Nordion representative explained that Nordion's operations focus on Co-60 production. The representative noted that Nordion has shared information with KFN regarding the two primary waste streams and their respective volumes. The Nordion representative added that, while Nordion was seeking clarification on its ability to provide additional details to KFN — given that its waste streams are sent to other licensees — the representative suggested that it may be helpful to further distinguish the specific aspects of the waste streams managed by Nordion from those managed by BWXT Medical.[91] The Commission notes that the operations of other licensed facilities are outside of the scope of this hearing.

174. The Commission asked for more information concerning waste management over the proposed licence period, including potential volume increases. A Nordion representative responded that Nordion had no concerns in this regard, noting that, given the facility's stable waste stream over the past decade, any increase in waste is

[89] Transcript, June 4, 2025, pages 165-166 : "The general active area waste is low-level waste and includes wipes, booties, gloves, etc.…In-cell waste is the waste produced inside the cells during source manufacturing such as wipes, manipulator fingers, tubes, etc."
[90] Transcript, June 4, 2025, pages 100-102.
[91] Transcript, June 4, 2025, pages 178-179.

expected to be roughly proportional to increased production throughput and would continue to be well managed. The representative emphasized the importance of having appropriate waste disposal facilities in place to ensure effective long-term management. CNSC staff confirmed that Nordion currently conducts onsite waste management safely, in accordance with its waste management program, and packages and transports radioactive waste off-site to licensed waste facilities. Nordion is required to prepare and maintain records of all waste transfers to licensed receivers, which CNSC verifies through annual reports and inspections. CNSC staff also noted that Nordion is expected to continue improving its overarching governance and safety documentation over time, under ongoing CNSC oversight.[92]

175. Based on the information on record, as described above, the Commission concludes that Nordion has an adequate waste management program in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the waste management SCA meet regulatory requirements, including REGDOC-2.11.1, and are adequate to support the continued operation of its facility.

176. The Commission acknowledges that Nordion's next decommissioning plan submission is due in 2027.

3.4.12 Security

177. The security SCA covers the programs required to implement and support the security requirements stipulated in the regulations, the licence, orders, or expectations for the facility or activity. Licence condition 13.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a security program.

178. Paragraph 12(1)(c) of the GNSCR requires the licensee to take all reasonable precautions to protect the environment and the health and safety of persons, and to maintain the security of nuclear facilities and of nuclear substances. Paragraphs 12(1)(g) and 12(1)(h) require the licensee to implement measures for alerting the licensee to the illegal use or removal of a nuclear substance, prescribed equipment or prescribed information, or the illegal use of a nuclear facility, and measures for alerting it to acts or attempts of sabotage, anywhere at the site of the licensed activity. Section 12(1)(j) requires the licensee to instruct workers on the physical security program at the site of the licensed activity and on their obligations under that program.

179. REGDOC-2.12.3, *Security of Nuclear Substances: Sealed Sources and Category I, II and III Nuclear Material*,[93] provides regulatory expectations and guidance for Nordion regarding the CNSC's expectations under the GNSCR for security. The

[92] Transcript, June 4, 2025, pages 102-105.
[93] CNSC Regulatory Document, REGDOC-2.12.3, *Security of Nuclear Substances: Sealed Sources and Category I, II and III Nuclear Material*, Version 2.1, September 2020.

Nordion facility is also subject to Part 2 of the *Nuclear Security Regulations*,[94] specifically sections 39 to 48.

180. In section 4.12 of CMD 25-H6.1, Nordion provided the Commission with information on its security programs. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence.

181. In section 2.12 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the security SCA covering the following specific areas:

- facilities and equipment
- response arrangements
- security practices

182. CNSC staff assessed that Nordion's programs within the security SCA met regulatory requirements.

183. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and rated it as satisfactory. CNSC staff reported on its inspections in 2015, 2017, 2019 and 2023, and noted that all findings of non-compliance had been resolved.

184. CNSC staff noted that in November 2024, Nordion submitted the 2023 Nordion Physical Security Report and Plan, including prescribed information on planned security improvements. These improvements had been reviewed and accepted by CNSC staff, and CNSC staff expects Nordion to implement the improvements during the proposed licence period.

185. Based on the information on record, as described above, the Commission concludes that Nordion has a security program in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the security SCA meet regulatory requirements, including REGDOC-2.12.3 and the *Nuclear Security Regulations*, and are adequate to support the continued operation of its facility.

186. The Commission takes note of Nordion's plan to implement security improvements outlined in the 2023 Nordion Physical Security Report and Plan.

3.4.13 Safeguards and non-proliferation

187. The safeguards and non-proliferation SCA covers the programs and activities required for the successful implementation of the obligations arising from the Canada/International Atomic Energy Agency (IAEA) safeguards agreements, as well as all other measures arising from the *Treaty on the Non-Proliferation of*

[94] SOR/2000-209.

Nuclear Weapons (NPT)[95]. Pursuant to the NPT, Canada has entered into a *Comprehensive Safeguards Agreement*[96] and an *Additional Protocol*[97] (safeguards agreements) with the IAEA. The objective of these safeguards agreements is for the IAEA to provide credible assurance on an annual basis to Canada and to the international community that all declared nuclear material is in peaceful, non-explosive uses and that there is no undeclared nuclear material or activity in this country. Licence condition 14.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a safeguards program.

188. *REGDOC-2.13.1, Safeguards and Nuclear Material Accountancy*[98] sets out requirements and guidance for safeguards programs for applicants and licensees who possess nuclear material, operate a uranium and/or thorium mine, carry out specified types of nuclear fuel-cycle related research and development work, and/or carry out specified types of nuclear-related manufacturing activities.

189. In section 4.13 of CMD 25-H6.1, Nordion provided the Commission with information on its safeguards and non-proliferation programs. Nordion submitted that its programs and processes continued to comply with the licensing basis requirements in the current licence. Nordion noted that it conducts annual Physical Inventory Takings of safeguarded materials, followed by Physical Inventory Taking-Evaluations carried out by the CNSC.

190. In section 2.13 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the safeguards and non-proliferation SCA covering the following specific areas:

- nuclear material accountancy and control
- access and assistance to the IAEA
- operational and design information
- safeguards equipment, containment and surveillance
- import and export (requires separate authorization)[99]

191. CNSC staff assessed that Nordion's programs within the safeguards and non-proliferation SCA met regulatory requirements. CNSC staff noted that there are no major changes anticipated for this SCA in the near future.

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[95] INFCIRC/140.
[96] INFCIRC/164.
[97] INFCIRC/164/Add.1.
[98] CNSC Regulatory Document, REGDOC-2.13.1, *Safeguards and Nuclear Material Accountancy*, February 2018.
[99] The import and export of controlled nuclear substances, equipment, and information — as prescribed by the *Nuclear Non-proliferation Import and Export Control Regulations* – require separate licence authorization from the CNSC, in accordance with paragraph 26(a) of the NSCA and subsection 3(2) of the GNSCR. In section 2.13.2 of CMD 25-H6, CNSC staff submitted that it was satisfied that an effective licensing and compliance program for nuclear and nuclear-related dual-use items, as well as risk-significant sealed sources, had been implemented at Nordion's facility. Specifically, Nordion has obtained separate licences for the export of both non–risk-significant sources and risk-significant sources.

192. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and rated it as satisfactory.

193. Based on the information on record, as described above, the Commission concludes that Nordion has adequate safeguards programs in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the safeguards and non-proliferation SCA meet regulatory requirements, including REGDOC-2.13.1, and are adequate to support the continued operation of its facility.

3.4.14 Packaging and transport

194. The packaging and transport SCA covers the safe packaging and transport of nuclear substances to and from the licensed facility. Licence condition 15.1 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a packaging and transport program.

195. The *Packaging and Transport of Nuclear Substances Regulations, 2015*[100] provides requirements for the packaging and transport of nuclear substances, including the design, production, use, inspection, maintenance and repair of packages, and the preparation, consigning, handling, loading, carriage and unloading of packages. The *Transportation of Dangerous Goods Regulations*[101] provides requirements for the handling and transport of dangerous goods for all shipments.

196. In section 4.14 of CMD 25-H6.1, Nordion provided the Commission with information on its packaging and transport program. Nordion submitted that its programs and processes related to the packaging and transport SCA continued to comply with the licensing basis requirements in the current licence.

197. Nordion explained that its packaging and transport program covers all aspects of package handling — from design to unloading — for the transportation of Type A, Type B, and Excepted packages.[102] The content of the program was modeled on regulatory requirements listed in the *Packaging and Transportation of Nuclear Substances Regulations*, the *Transportation of Dangerous Goods Regulations*, IAEA's Safety Standards Series (SSR) No. SSR-6, *Regulations for the Safe Transport of Radioactive Material*,[103] Title 49 of the Code of Federal Regulations (CFR),[104] and 10 CFR Part 71.[105] Nordion also maintains a Transport Package Quality Plan to ensure the quality assurance of radioactive material transport

[100] SOR/2015-145.
[101] SOR/2001-286.
[102] Type A, Type B and Excepted packages are defined in the *Packaging and Transport of Nuclear Substances Regulations, 2015*, which incorporate definitions from IAEA's SSR-6, *Regulations for the Safe Transport of Radioactive Material*.
[103] IAEA SSR-6, *Regulations for the Safe Transport of Radioactive Material*, IAEA, 1996.
[104] Title 49 of the CFR, *Transportation*, US Department of Transportation.
[105] 10 CFR Part 71, *Packaging and transportation of radioactive material*, US Nuclear Regulatory Commission.

packaging, which is encompassed within the scope of its ISO 9001-certified quality management system.[106]

198. In section 2.13 of CMD 25-H6, CNSC staff submitted its assessment of Nordion's performance related to the packaging and transport SCA covering the following specific areas:

- packaging and transport
- packaging design and maintenance/registration for use

199. CNSC staff assessed that Nordion's programs within the packaging and transport SCA met regulatory requirements. CNSC staff noted that no changes were proposed for this SCA during the proposed licence term.

200. CNSC staff reported that, during the current licence period, it conducted compliance verification activities to evaluate Nordion's performance in this SCA and no findings of non-compliance were identified.

201. Asked for more information concerning Nordion's responsibilities with respect to packaging and transport,[107] a Nordion representative explained that Nordion's operations begin with the receipt of Co-60, followed by the production of sealed sources, their packaging, and shipping. The representative added that Nordion is responsible for transport security as the consignor of shipments, and oversees the return of disused sources, which are reintegrated into the manufacturing process. CNSC staff confirmed that Nordion's licensed responsibilities begin upon receipt of a shipment of Co-60; once the products leave its facility, Nordion's responsibility continues as the consignor during transport until they are received by the customers.[108]

202. The AOPFN expressed concerns regarding the transportation of radioactive materials, specifically the routing and associated risk assessments, and indicated a desire to be involved in their development. The AOPFN also questioned who holds the chain of custody for radioactive materials while in transit.[109]

203. The Commission asked Nordion to provide additional information in light of the questions raised by AOPFN. A Nordion representative explained that, whether shipments originate from or are destined for Nordion's facility, they are managed under the company's security and safety programs, in compliance with applicable regulatory requirements. Nordion maintains control of the shipments at all times. CNSC staff added that the requirements under the *Packaging and Transport of Nuclear Substances Regulations, 2015* must be complied with.[110]

[106] CMD 25-H6.1, section 4.14.
[107] CMD 25-H6.1A, page 6.
[108] Transcript, June 4, 2025, pages 57-59.
[109] CMD 25-H6.8, pages 10, 13.
[110] Transcript, June 4, 2025, pages 137-139.

204. Based on the information on record, as described above, the Commission concludes that Nordion has an adequate packaging and transport program in place to accommodate the activities that the proposed licence renewal would authorize. The Commission finds that Nordion's existing programs and processes related to the packaging and transport SCA meet regulatory requirements and are adequate to support the continued operation of its facility.

3.4.15 Conclusion on Nordion's safety and control measures with respect to the safety and control areas

205. Based on its analysis of the information provided and discussed above, the Commission is satisfied that Nordion is qualified to carry on the licensed activities that the renewed licence would authorize. In addition, the Commission finds that Nordion has adequate programs and measures in place with respect to the 14 SCAs to ensure that the health and safety of workers, the public and the environment will be protected. The Commission further concludes that Nordion has adequate measures in place to provide for the maintenance of national security and to implement international obligations to which Canada has agreed.

3.5 Indigenous engagement and consultation

206. The common law duty to consult stems from Section 35 of the *Constitution Act, 1982*[111] and is grounded in the principle of the honour of the Crown, which requires that the Crown act with integrity and in good faith in its dealings with Indigenous people. As an agent of the Crown, the Commission must uphold the honour of the Crown and ensure the duty to consult and accommodate, if applicable, are discharged.

207. The duty to consult is engaged when the Crown has "knowledge, real or constructive, of the potential existence of an Aboriginal right or title and contemplates conduct that might adversely affect it".[112] Specifically, the duty to consult is triggered when the following three elements are met:[113]

- the Crown has knowledge, actual or constructive, of a potential Aboriginal claim or right;
- the Crown is contemplating a certain conduct that may engage a potential Aboriginal right; and
- the Crown's decision or action has the potential to adversely affect an Aboriginal claim or right.

208. Licensing decisions of the Commission, where Indigenous interests may be adversely impacted, can engage the duty to consult. In those cases, the Commission must be satisfied that it has met the duty prior to making the relevant licensing

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[111] *Constitution Act, 1982*, Schedule B to the *Canada Act 1982* (UK), 1982, c 11.
[112] *Haida Nation v British Columbia (Minister of Forests)*, 2004 SCC 73 at para 35 [*Haida Nation*].
[113] *Rio Tinto Alcan Inc. v Carrier Sekani Tribal Council*, 2010 SCC 43 at para 31[*Rio Tinto*].

decision. The duty to consult is not triggered by historical impacts and is not meant to address past grievances, but rather is designed to address potential impacts flowing from a current proposed project.[114]

209. The determination of what the duty to consult and accommodate requires is informed by the principles and the provisions of the UN Declaration as a result of its adoption into Canadian law via the *United Nations Declaration on the Rights of Indigenous Peoples Act*[115] (the UN Declaration Act). The content of the UN Declaration is to be used as a lens to interpret the Crown's duty to consult and accommodate.[116]

210. The CNSC's consultation process provides for Indigenous Nations and communities to:

- receive and assess project information
- share information and discuss topics of interest
- seek feedback and input on the CNSC processes
- participate in environmental monitoring programs, such as the CNSC IEMP
- apply for funding, such as the PFP and the Stakeholder Capacity Fund, to meaningfully participate in Commission proceedings and ongoing regulatory activities
- participate in public proceedings
- make submissions—both oral and written—about potential or actual impacts to Aboriginal and/or treaty rights, as well as other concerns, and about how those impacts could be mitigated or accommodated
- integrate Indigenous ceremony/tradition into public proceedings

211. The Commission also made changes to the hearing process to foster an environment that encourages working together in partnership and respect, and to more fully incorporate Indigenous cultural traditions. Accommodations included:

- arranging the hearing room so that participants and the Commission were facing each other and were seated on the same level, as closely to a circle-style as possible
- inviting a member of the AOPFN to deliver an opening prayer [117]
- providing additional time for rights-holding Nations to share their knowledge and express their concerns

212. In meeting its obligations towards Indigenous Nations and communities, the Commission may rely on consultation undertaken by CNSC staff as well as the

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[114] *Rio Tinto* at para 49; *Chippewas of the Thames First Nation v Enbridge Pipelines Inc.*, 2017 SCC 41 at para 41 [*Chippewas of the Thames*].
[115] S.C. 2021, c.14
[116] *Kebaowek First Nation v Canadian Nuclear Laboratories*, 2025 FC 319 [*Kebaowek First Nation*].
[117] Transcript, June 4, 2025, pages 106-111.

opportunities for Indigenous Nations and communities to make submissions directly to the Commission and to participate in the hearing process. While the Commission cannot delegate its duties, and is ultimately responsible for ensuring that its duties are fulfilled, the Commission may also consider the engagement work undertaken by Nordion.[118]

3.5.1 Indigenous engagement by CNSC staff

213. The Commission considered the information submitted by CNSC staff regarding its ongoing engagement and consultation with the Indigenous Nations and communities near the Nordion facility. In section 3.1 of CMD 25-H6, CNSC staff provided:

- a list of the Indigenous Nations and communities who may have an interest in Nordion's activities
- a summary of the CNSC's process to encourage participation of Indigenous Nations and communities in the hearing process
- its ongoing engagement concerning Nordion's facility including long-term engagement plan
- engagement conducted specific to this licence renewal application
- an assessment of Indigenous engagement conducted by Nordion during the current licence period

214. CNSC staff identified the following Indigenous Nations and communities that either have potential or established rights in relation to the renewal of Nordion's facility or may have an interest in Nordion's licence renewal application:[119]

- the Algonquin Anishinabeg Nation Tribal Council
- the Kitigan Zibi Anishinabeg First Nation (KZAFN)
- Kebaowek First Nation (KFN)
- the Algonquins of Ontario (AOO)
- the Algonquins of Pikwàkanagàn First Nation (AOPFN)
- the Métis Nation of Ontario

215. CNSC staff encouraged Indigenous Nations and communities' participation in the hearing process, provided information about the availability of participant funding to facilitate participation, and gave details on how to participate.

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[118] Aboriginal Consultation and Accommodation - Updated Guidelines for Federal Officials to Fulfill the Duty to Consult - March 2011 and CNSC Regulatory Document, REGDOC-3.2.2, Indigenous Engagement, February 2022.
[119] CMD 25-H6, page 55. The Indigenous Nations and communities listed were identified based on analysis conducted by CNSC staff using the Aboriginal and Treaty Rights Information System and other mapping tools, as well as through a review of existing CNSC and open resources including records of Indigenous Nations and communities who may have expressed interest in the Nordion facility in the past.

216. CNSC staff also provided information about its ongoing engagement with Indigenous Nations and communities regarding Nordion's facility. CNSC staff submitted that it continues to offer opportunities for interested Indigenous Nations and communities to meet and discuss their concerns regarding Nordion's facility, including within the context of the annual UNSPF RORs (some interested Indigenous Nations, such as the AOPFN and KFN, regularly participate in the review of the UNSPF RORs), and the Commission hearing concerning Nordion. Additionally, the CNSC signed a Terms of Reference (TOR) for long-term engagement with the AOPFN, KFN, and the Métis Nation of Ontario. Furthermore, CNSC staff regularly meets with the AOPFN, KFN, the Métis Nation of Ontario, the KZAFN, and the Algonquins of Ontario, where Nordion's licence renewal application was a topic of discussion.[120]

217. CNSC staff further submitted that, specific to this application, it provided notifications to Indigenous Nations and communities in December 2024. It offered to meet with all identified Indigenous Nations and communities to discuss Nordion's application. It then followed up with interested Indigenous Nations and communities, via phone calls, to discuss intervention deadlines and hearing details, as well as to answer any questions about the licence renewal application.[121]

218. CNSC staff reported that, although the requirements of REGDOC-3.2.2, *Indigenous Engagement*[122] were not required for Nordion's licence renewal application,[123] CNSC staff reviewed Nordion's Indigenous engagement activities during the current licence period and is satisfied that Nordion has met the regulatory requirements for Indigenous engagement and public outreach, while continuously working to enhance their efforts.[124]

219. CNSC staff took the position that, as Nordion's application does not request any changes to its currently licensed activities, the proposed licence will not cause any novel adverse impacts to any potential or established Aboriginal or treaty rights. CNSC staff is of the opinion that, for this licence renewal application, both Nordion and the CNSC conducted appropriate engagement activities with interested Indigenous Nations and communities to ensure that each Nation could express its concerns about the application and participate in the regulatory review process, including the Commission hearing.[125]

3.5.2 Indigenous engagement by Nordion

220. The Commission examined the information submitted by Nordion regarding its ongoing engagement with Indigenous Nations and communities for the Nordion facility. In section 4.17 of CMD 25-H6.1, Nordion provided:

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[120] CMD 25-H6, section 3.1.1.
[121] CMD 25-H6, section 3.1.1.
[122] CNSC REGDOC-3.2.2, *Indigenous Engagement*, February 2022.
[123] Transcript, June 4, 2025, page 45.
[124] CMD 25-H6, page 56. Nordion's plans to make its Indigenous engagement more tailored and direct to better address the needs of the Indigenous Nation and communities involved.
[125] CMD 25-H6, section 3.1.2.

- a list of Indigenous Nations and communities who may have an interest in Nordion's activities
- a summary of Indigenous engagement activities conducted from 2023 to 2025
- a plan to increase its efforts to foster a positive relationship with the Indigenous Nations and communities, and to raise awareness of Nordion's activities[126]

221. Nordion submitted its engagement activities with the AOPFN starting in 2023, beginning with the Nordion Senior Leadership Team attending cultural awareness training in the AOPFN community. In the same year, Nordion also provided a facility tour to the AOPFN. In May 2024, Nordion and the AOPFN initiated discussions on an engagement plan. And in 2025, Nordion planned to work with the AOPFN to host an in-person discussion within the AOPFN community regarding Nordion's licence submission. At the hearing, Nordion reported on its April 2025 presentation in the AOPFN community, and its plan to invite the AOPFN to future emergency response exercises.[127]

222. Nordion further submitted its engagement activities specific to this licence renewal application. In 2024, Nordion provided formal notices of its application to the AOPFN, KFN, the AOO, the Métis Nation of Ontario, and the KZAFN, out of which the AOO reached out for further information. Nordion then followed up with the AOO via phone calls in August 2024 and February 2025 and planned to host members from the AOO for a site tour in 2025. Recently, Nordion met with KFN in May 2025.[128] Nordion has also supported Bruce Power's engagement efforts with the Saugeen Ojibway Nation.[129]

3.5.3 Submissions by Indigenous Nations and communities

223. The Commission benefitted from the following oral and written interventions by Indigenous Nations and communities:

- The AOPFN (CMD 25-H6.8 and CMD 25-H6.8A)
- KFN (CMD 25-H6.11, CMD 25-H6.11A and CMD 25-H6.11B)

[126] CMD 25-H6.1, Table 1 (page 4).
[127] Transcript, June 4, 2025, page 25.
[128] CMD 25-H6.1A, page 17.
[129] Bruce Power, located on the traditional and treaty territory of the Saugeen Ojibway Nation, supplies Co-60 to Nordion.

3.5.3.1 The Algonquins of Pikwàkanagàn First Nation

224. The AOPFN submitted that Nordion's facility is located within the AOPFN's traditional, unceded territory, where the Nation holds legal and constitutional status as rights-holders and exercises its rights to self-determination, self-reliance, and self-governance. AOPFN expects the CNSC to uphold the Honour of the Crown, respect the Indigenous rights protected under Section 35 of the *Constitution Act, 1982*, and honour international human rights standards through the implementation of the UN Declaration.

225. The AOPFN's intervention is grounded in the Seven Grandfather Teachings.[130] The AOPFN acknowledged the CNSC's PFP, Nordion's recent improvements in engagement, and the opportunity to participate in the CNSC's IEMP.[131] The AOPFN expressed concerns about the lack of meaningful consultation and consideration for Indigenous interests, the proposed 25-year licence term, and the transparency of data available to the public. AOPFN raised additional concerns about the transportation of radioactive materials, emergency response planning, environmental monitoring, and decommissioning planning. AOPFN expressed interest in contributing to the development of related programs.

226. Details of AOPFN's submissions are outlined below and in the following sections of this *Record of Decision*:

- Section 3.4: Nordion's safety and control measures with respect to the safety and control areas
- Section 3.6.3: Decommissioning Plans and financial guarantee
- Section 3.7.1: Licence length

227. The AOPFN's key concern is that no structured relationship exists between Nordion and the AOPFN. While Nordion has made recent improvements in engagement, the AOPFN maintains that they are insufficient. The AOPFN noted that Nordion had not obtained a social licence to operate from the AOPFN and highlighted the lack of equitable access to economic opportunities for Indigenous communities — such as employment, training, and procurement — to offset operations on the AOPFN's unceded territory.[132]

[130] Transcript, June 4, 2025, page 107.
[131] CMD 25-H6.8, pages 4, 8.
[132] CMD 25-H6.8, pages 8-9, 12.

228. The AOPFN recommended the integration of its proposed Aboriginal Rights Safety and Control Areas (ARSCAs)[133] in future reviews by CNSC staff, to promote and protect Aboriginal rights and incorporate Indigenous determinants of health and safety.[134] The AOPFN noted that in relation to Nordion's facility, the ARSCAs were first proposed in its intervention[135] on the 2021 UNSPF ROR. The AOPFN expressed concerns that on this application, CNSC staff did not evaluate Nordion's performance in accordance with the ARSCAs, and that there was no mention or acknowledgement of the ARSCAs in CNSC staff's CMD.[136]

229. Regarding Nordion's emergency response planning, the AOPFN expressed concerns about past deficiencies and conveyed its interest in participating in future planning and drills.[137]

230. With respect to environmental monitoring, the AOPFN noted the lack of publicly available monitoring data and the absence of a cumulative effects assessment and expressed interest in co-developing future Environmental Risk Assessments.[138]

231. In addition to the concerns outlined above, the AOPFN also noted the lack of public access to the supporting data associated with this application.[139]

Hearing Discussion

232. The Commission asked the AOPFN how the proposed ARSCAs have been informed by Indigenous law principles and Indigenous Knowledge. A representative from the AOPFN explained that the ARSCAs were developed with input from the community, during which Algonquin Knowledge — embedded within Algonquin traditional law — was gathered.[140]

233. The Commission asked the AOPFN how the ARSCA ratings were developed. A representative from the AOPFN explained that the ratings are mainly based on a proponent's contributions and commitment to Indigenous engagement.[141]

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[133] The ARSCAs are a set of 8 SCAs that the AOPFN has developed jointly with Sagkeeng Anicinabe First Nation to evaluate recognition and protection of Aboriginal rights, integration of Indigenous Knowledge into site monitoring and management, risk communication, engagement adequacy, and contribution to reconciliation. See CMD 25-H6.8, Appendix B for a full list of the ARSCAs as well as the AOPFN's assessment of Nordion's operations against the ARSCAs in 2023.
[134] Transcript, June 4, 2025, page 109.
[135] CMD 22-M35.1.
[136] CMD 25-H6.8, page 8.
[137] CMD 25-H6.8, page 11.
[138] CMD 25-H6.8, page 11.
[139] The AOPFN requested access to Nordion's Preliminary Decommissioning Plan, the nature of past deficiencies in Nordion's emergency response planning and corrective actions taken, Nordion's environmental monitoring data (in accessible formats), and Nordion's Final Safety Analysis Report (or a public summary of key risk assumptions, high-risk accidents scenarios and their consequences).
[140] Transcript, June 4, 2025, pages 111-114.
[141] Transcript, June 4, 2025, pages 114-115.

234. CNSC staff noted that the ARSCAs have been a topic of discussion for several years between the CNSC and the AOPFN, as part of ongoing efforts to understand the AOPFN's vision for the ARSCAs.[142]

235. The Commission asked if there are commonalities between the ARSCAs and the views of other Indigenous Nations and communities. An AOPFN representative believed that there are shared perspectives and approaches that other Nations may also find applicable. CNSC staff added that, while the subject remains under review and discussion, a broader set of principles and expectations for engagement and advancing reconciliation across the nuclear sector are captured under REGDOC-3.2.2. CNSC staff noted that a formal consultation for the updated version of REGDOC-3.2.2 is forthcoming and encouraged all Indigenous Nations and communities to participate and provide feedback.[143]

236. In consideration of the environmental impact of Nordion's facility, the Commission asked for the AOPFN's input on how to identify and bridge gaps between Western science and Algonquin Knowledge. An AOPFN representative responded that one approach is through the Guardian Program, which encompasses various activities aimed at providing Algonquin Knowledge, such as identifying wildlife, species at risk, plants, culturally significant features, and safety concerns. The representative explained that the typical process includes site tours, sampling programs, and community meetings.[144]

237. CNSC staff reported on its engagement with Indigenous Nations regarding Indigenous Knowledge through the IEMP, describing it as a genuine partnership focused on the collaborative exchange of knowledge and information. It noted that the nature of engagement varies depending on the facility and the project. CNSC staff added that the CNSC has actively supported the development of Guardian Programs, providing funding through its Indigenous and Stakeholder Capacity Fund to assist with hiring experts and guardians.[145]

238. Concerning emergency response, the Commission asked how Nordion envisions participation from the impacted communities. A Nordion representative explained that, depending on the AOPFN's preferences, it would typically involve inviting the AOPFN members to participate and observe the emergency exercises, followed by debriefs to gather feedback, which would then be used to enhance Nordion's programs.[146]

[142] Transcript, June 4, 2025, page 122.
[143] Transcript, June 4, 2025, pages 128-131.
[144] Transcript, June 4, 2025, pages 131-134.
[145] Transcript, June 4, 2025, pages 135-137.
[146] Transcript, June 4, 2025, pages 119-121.

239. Regarding the AOPFN's concern on the absence of a structured relationship, the Commission asked about Nordion's plans to improve its relationship with the AOPFN. Representatives from Nordion acknowledged that Nordion is in the early stages of engagement and confirmed that it's among the company's goals to improve those relationships.[147] Nordion representatives also highlighted its desire to gain a clearer understanding of the specifics of engagement and working collaboratively with the AOPFN and the CNSC, while drawing on lessons learned from the industry.[148]

240. CNSC staff reported on its longstanding relationship with the AOPFN, highlighting the signing of a TOR for long-term engagement, regular monthly meetings, and an engagement work plan outlining priority areas for engagement. CNSC staff also noted the AOPFN's participation in the CNSC's IEMP. CNSC staff explained that, as per requirements in CNSC REGDOC-3.2.1, *Public Information and Disclosure*,[149] licensees are required to have an engagement, outreach and communications program, which CNSC staff reviews along with the engagement activities as part of the preparation for RORs or licensing hearings. A key role for CNSC staff is conveying feedback from Indigenous Nations and communities to licensees. CNSC staff acknowledged that there is a strong foundation of collaboration to build upon.[150]

241. The AOPFN emphasized its sacred duty and responsibility to protect the environment and its goal of integrating Western knowledge with Algonquin traditional knowledge. They acknowledged the positive collaboration with the CNSC to date[151] and expressed interest in fostering a similar relationship with Nordion. The AOPFN expressed optimism about the path forward with Nordion. The representatives conveyed optimism about moving forward.

3.5.3.2 Kebaowek First Nation

242. KFN submitted that Nordion's facility is located within KFN's territory, where the Nation exercises Aboriginal rights, including Aboriginal title, and holds constitutional rights protected under the *Constitution Act, 1982*, as well as rights recognized and affirmed by the UN Declaration.[152]

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[147] CMD 25-H6.1, Table 1 on page 4.
[148] Transcript, June 4, 2025, pages 115-119, 143-145.
[149] CNSC REGDOC-3.2.1, *Public Information and Disclosure*, May 2018.
[150] Transcript, June 4, 2025, pages 121-124.
[151] The AOPFN representatives highlighted progress on engagement work plan activities, the opportunity to submit annual budgets to support their engagement efforts, and the funding of a CNSC-supported position to assist with the administrative demands of that work. They also noted the exploration of additional resources to strengthen communication with AOPFN members and the broader public.
[152] The UN Declaration has been incorporated into Canadian law through the UN Declaration Act.

243. KFN expressed a range of concerns, including the adverse impacts on its rights; the lack of engagement and consultation; the inadequacy of financial assistance to support legitimate consultation; the proposed 25-year licence term; the transportation and storage of radioactive materials; the absence of an environmental justice lens; and the insufficiency of information provided. Accordingly, KFN requested that the Commission either reject the application or defer its decision to ensure the proper fulfillment of the duty to consult and accommodate, in alignment with the UN Declaration and KFN's Indigenous laws and protocols. Details of KFN's submission and relevant discussions are outlined below and in the following sections of this *Record of Decision*:

- Section 3.2: Assessment of Nordion's licence renewal application
- Section 3.4: Nordion's safety and control measures with respect to the safety and control areas
- Section 3.7.1: Licence length

244. KFN submitted that Nordion's application poses severe adverse impacts on the Nation's inherent and constitutionally protected rights. As such, it necessitates the CNSC's duty to consult — falling at the deepest end of the consultation spectrum[153] — and engages multiple principles of the UN Declaration. KFN emphasized that the potential impacts of an activity, along with the Crown's obligations, must be evaluated in a broader context, including the cumulative effects of past and ongoing activities.[154] KFN asserted its expectation — and right[155] — to play a central role in decision-making related to waste disposal on Algonquin lands. Moreover, the duty to consult must be fulfilled through the interpretive lens of the UN Declaration and the standard of free, prior, and informed consent (FPIC), taking into account the Nation's laws, traditional knowledge, and governance processes, with the ultimate aim of achieving mutual agreement.[156, 157]

245. KFN submitted that both the CNSC and Nordion failed to engage in meaningful consultation regarding this licence renewal application. Specifically, KFN stated that the CNSC did not fulfill its constitutional obligation to ensure that the Nation was adequately consulted and accommodated. KFN noted that the TOR established with the CNSC does not reference Nordion or this project and therefore cannot be

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[153] CMD 25-H6.11, page 10.
[154] KFN opposed the Commission's October 2021 decision regarding BWXT Medical's application for a Class IB licence, where the Commission decided that the application would not cause any adverse impacts to any established or potential Indigenous and/or treaty rights and thus, the duty to consult is not engaged. KFN noted that this decision caused a narrow depth of consultation and actively discourages meaningful consultation and engagement with KFN at the Nordion site in Kanata (Transcript, June 4, 2025, page 155).
[155] Article 29.2 of the UN Declaration requires states to take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of Indigenous peoples without their FPIC. Article 32 provides KFN the right to determine and develop priorities and strategies for the development or use of its territory and other resources and requires CNSC to consult and cooperate in good faith with KFN in order to obtain FPIC prior to the issuance of the Nordion licence.
[156] *Kebaowek First Nation* at paras 180 and 183.
[157] KFN noted that the CNSC possesses the jurisdiction to integrate the UN Declaration and the UN Declaration Act into its decision-making process (Transcript, June 4, 2025, page 152).

relied upon as evidence of ongoing consultation or its fulfillment.[158] Furthermore, the CNSC did not conduct a consultation process aligned with the UN Declaration, nor did it seek FPIC.[159] KFN also emphasized that no formal relationship exists with Nordion,[160] and that Nordion failed to engage with the Nation regarding Ona'ken'age'win — KFN's customary law and governance system — or its Indigenous laws and practices, which the CNSC similarly failed to consider in preparing its CMD.

246. KFN emphasized the need for adequate financial assistance to support legitimate consultation, as recognized under Articles 29.1 and 39 of the UN Declaration. The Nation expressed concern that the CNSC's PFP is insufficient to ensure meaningful participation.[161]

247. KFN submitted that this licence renewal application lacks an environmental justice lens and should include an assessment of whether, and to what extent, the licence may hinder Canada's ability to fulfill its commitments under the *National Strategy Respecting Environmental Racism and Environmental Justice Act*.[162]

248. KFN also recommended that the CNSC apply the IAEA principle of justification in radiation protection[163] and strengthen Indigenous consultation to address elements of Canada's international commitments under the *Convention on Biological Diversity*.[164]

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[158] KFN was in the process of adapting the Terms of Reference to align with the standards set out in the UN Declaration (Transcript, June 4, 2025, page 154).
[159] KFN highlighted the relevant requirements under Articles 18, 19 and 27 of the UN Declaration (Transcript, June 4, 2025, pages 156-157).
[160] KFN had a recent discussion with Nordion regarding the development of a Letter of Intent for a consultation and engagement framework agreement. However, until this hearing, there was no formalized relationship in place between KFN and Nordion (Transcript, June 4, 2025, page 156).
[161] KFN expressed concern that the CNSC funding panel appears to be pre-determining the scope of engagement that KFN should undertake, rather than responding to the Nation's articulated needs—needs that are rooted in its right to self-determination and its authority to make informed decisions regarding projects affecting its territory (CMD 25-H6.11, section 6). In addition, KFN was also concerned that CNSC staff was attempting to direct how consultation fund should be used, which limited KFN's ability to participate (Transcript, June 4, 2025, page 150).
[162] S.C. 2024, c. 11. Bill C-226 received Royal Assent on June 20, 2024.
[163] The 2007 Recommendations of the International Commission on Radiological Protection defines the principle of justification in radiation protection as a process of determining whether a planned activity involving radiation is, overall, beneficial, i.e. whether the benefits to individuals and to society from introducing or continuing the activity outweigh the harm (including radiation detriment) resulting from the activity. In the 2019 Integrated Regulatory Review Service (IRRS) Report to Canada, there is a suggestion that Canada's legal framework should consider explicitly addressing the IAEA fundamental safety principle SF-1 Principle 4 (Justification). In 2020, Canada responded that this principle is implicitly integrated within the NSCA through the CNSC's mandate to prevent unreasonable risks to the environment and public health and safety. In the 2024 IRRS follow-up mission report, this observation was left open as the legal framework has not been amended to explicitly address SF-1, Principle 4.
[164] Environment and Climate Change Canada, *Convention on Biological Diversity*, 2022. The Convention recognizes the value of incorporating Indigenous knowledge into natural resource management and conservation efforts.

Hearing Discussion

249. Regarding KFN's concern that its current TOR with the CNSC does not list Nordion or this project, the Commission enquired whether these were explicitly excluded or if the TOR is more general in nature. KFN representatives responded that the TOR signed between the CNSC and KFN is more specific to other projects. CNSC staff noted that two separate TORs have been signed with KFN and confirmed that Nordion is listed as one of the facilities in Schedule B of the TOR signed in September 2022.[165] CNSC staff reported on its engagement activities with KFN since receiving the application and commented that the framework has been functioning well overall.[166]

250. Asked to explain its plan for developing its relationship with KFN, Nordion acknowledged that the relationship is still in its early stages and emphasized the importance of working collaboratively with its commercial partners throughout the engagement process. Nordion offered to provide KFN with a site tour and to explain the distinct operations of Nordion and BWXT Medical, as well as the specifics of Nordion's supply chain.[167]

251. KFN representatives emphasized that their requests are not new — dating back for at least four years[168] — and the relationship should no longer be in its infancy. They outlined their review process and noted that funding challenges had limited their involvement in this application. The representatives acknowledged that engagement is now at a pivotal point due to recent changes in domestic law. They expressed an interest in working collaboratively with Nordion to establish a framework for engagement, similar to the one being developed with the CNSC. This would include reviewing and updating the TOR to outline a process that reflects both the constitutional obligations under Section 35 of the *Constitution Act, 1982* and Canada's commitments under the UN Declaration.[169]

252. Asked to elaborate on the specific adverse impacts on KFN's rights, KFN representatives reaffirmed the Nation's Indigenous rights protected under Section 35 of the *Constitution Act, 1982*, the *Canadian Charter of Rights and Freedoms*,[170] the UN Declaration and the UN Declaration Act. They noted that due to limited information disclosure and insufficient funding to access expert support, KFN was unable to fully assess or comment on the severity and scope of potential adverse impacts. The representatives recommended that the Commission revisit the joint submission from KFN and the KZAFN regarding Chalk River Laboratories' application to construct a Near Surface Disposal Facility (NSDF),[171] where the

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[165] CMD 25-H6.B, page 033.
[166] Transcript, June 4, 2025, pages 169-172, 215.
[167] Transcript, June 4, 2025, pages 172-175.
[168] In its oral presentation, KFN asked the Commission to consider its submissions for the 2021, 2022, 2023 UNSPF RORs and the 2021 BWXT Medical Class IB licence application hearing, which were added to the record as CMD 25-H6.11B (Transcript, June 4, 2025, page 163).
[169] Transcript, June 4, 2025, pages 175-178.
[170] *Canadian Charter of Rights and Freedoms*, Part I of the *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (UK), 1982, c 11.
[171] CMD 22-H7.111D, H7.111E, H7.113C and H7.113D; attached in CMD 25-H6.11B.

impacts to rights were clearly outlined.[172] They suggested that this submission could serve as a reference for the Nordion project, particularly in relation to the potential impacts of waste streams on KFN's territory.[173] KFN also requested to add this submission to the record, along with KFN's submissions for the 2021,[174] 2022,[175] 2023[176] UNSPF RORs, and BWXT Medical's application for a Class IB licence.[177]

253. The Commission inquired about plans to mitigate potential impacts on KFN's rights, referencing the broader concerns KFN representatives shared above. A Nordion representative acknowledged the opportunity to provide additional information[178] and to strengthen engagement efforts. The representative also underscored Nordion's responsibility to the global community that relies on its products. CNSC staff reaffirmed its assessment that Nordion is operating safely and remains in full compliance with all regulatory requirements, including those related to waste management and transportation. CNSC staff concluded that Nordion's operations pose no risk to the health and safety of persons or the environment, and do not impact the exercise of Indigenous rights. While acknowledging concerns related to historical impacts, CNSC staff noted that such matters fall outside the scope of the current application.[179]

254. The Commission directed under Rule 15 that the following documents be added to the record of this proceeding:

- Supplementary information from CNSC staff – TORs between the CNSC and KFN (CMD 25-H6.B)
- Supplementary information from KFN – KFN's submissions for the 2021, 2022, 2023 UNSPF RORs, along with its submissions on BWXT Medical's application for a Class IB licence (CMD 25-H6.11B)

3.5.4 Conclusion on Indigenous consultation and engagement

255. The Commission considered the information provided by CNSC staff and Nordion regarding Indigenous consultation and engagement activities in respect of Nordion's application. While Nordion admitted to being near the start of its reconciliation journey, the Commission acknowledges the recent efforts made by Nordion in relation to Indigenous engagement and its commitments about further developing these relationships.

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[172] KFN representatives highlighted a few rights, including rights to harvest, to a safe and healthy environment, to govern and protect their territory, to access and occupy their traditional lands, and — of particular importance — the right to maintain a cultural and spiritual relationship with the land.
[173] Transcript, June 4, 2025, pages 182-184.
[174] CMD 22-M35.4; attached in CMD 25-H6.11B.
[175] CMD 23-M35.3; attached in CMD 25-H6.11B.
[176] CMD 25-M10.3; attached in CMD 25-H6.11B.
[177] CMD 21-H5.20, 5.20A; attached in CMD 25-H6.11B.
[178] This includes providing KFN a clearer explanation of the environmental impacts of Nordion's operations, the measures in place to minimize those impacts, and the distinct operations between Nordion and BWXT Medical.
[179] Transcript, June 4, 2025, pages 185-189.

256. The Commission also acknowledges CNSC staff's efforts in this regard on behalf of the Commission, including efforts to ensure that Indigenous Nations and communities were properly informed of the licence renewal application and that participant funding was made available to assist Indigenous Nations and communities to participate in the hearing process.

257. The Commission carefully considered the oral and written submissions of the Indigenous Nations and communities provided in the context of the public hearing for this licence renewal application, as well as the past written submissions that the Commission added to the record for this proceeding. The Commission is honoured by the opening prayer from the AOPFN member at the beginning of this public hearing and the Commission sincerely appreciates the participation of the Indigenous Nations and communities, with special gratitude for the Elders who shared their knowledge and wisdom. The Commission recognizes the valuable time, energy, and knowledge Indigenous Nations and communities shared with the Commission.

258. The common law duty to consult with Indigenous Nations and communities arises when the Crown has knowledge of the existence of Aboriginal rights or title and contemplates conduct that might adversely affect those rights or title.[180] The existence and scope of the duty to consult or accommodate are legal questions that must be grounded in factual assessments.[181]

259. In rendering its decision, the Commission must assess whether it has fulfilled the duty to consult, in accordance with the honour of the Crown and section 35 of the *Constitution Act, 1982*. Furthermore, the Commission recognizes that the application and scope of the duty to consult must be considered through the interpretive lens of the UN Declaration.[182]

260. The Supreme Court has held that past wrongs and continuing breaches of Aboriginal rights do not, in and of themselves, give rise to a duty to consult. [183] Determining whether potential adverse impacts constitute continuing breaches requires close examination of the specific decision at issue. If past wrongs or continuing breaches give rise to new or novel impacts on Aboriginal rights, the duty to consult is triggered. The Supreme Court wrote the following in the *Rio Tinto* decision:

> [45] The third element of a duty to consult is the possibility that the Crown conduct may affect the Aboriginal claim or right. The claimant must show a causal relationship between the proposed government conduct or decision and a potential for adverse impacts on pending Aboriginal claims of rights. Past wrongs, including previous breaches of the duty to consult, do not suffice.
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> …

[180] *Haida Nation*, *supra* note 112 at para 35.
[181] *Haida Nation*, *supra* note 112 at para 35.
[182] *Kebaowek First Nation*, *supra* note 5 at para 128.
[183] *Rio Tinto*, *supra* note 1132.

> [48] An underlying or continuing breach, while remediable in other ways, is not an adverse impact for the purposes of determining whether a particular government decision gives rise to a duty to consult… The duty arises when the Crown has *knowledge*, real or constructive, of the potential or actual existence of the Aboriginal right or title "and contemplates conduct that might adversely affect it": *Haida Nation*, at para. 35 (emphasis added). This test was confirmed by the Court in *Mikisew Cree* in the context of treaty rights, at paras. 33-34.
>
> [49] The question is whether there is a claim or right that potentially may be adversely impacted by the *current* government conduct or decision in question. Prior and continuing breaches, including prior failures to consult, will only trigger a duty to consult if the present decision has the potential of causing a novel adverse impact on a present claim or existing right. This is not to say that there is no remedy for past and continuing breaches, including previous failures to consult. As noted in *Haida Nation*, a breach of the duty to consult may be remedied in various ways, including the awarding of damages. To trigger a fresh duty of consultation — the matter which is here at issue — a contemplated Crown action must put current claims and rights in jeopardy.

261. The Supreme Court reaffirmed in *Chippewas of the Thames*[184] that the duty to consult does not extend to addressing historical impacts. However, such impacts may be used to inform the scope of consultation in order to recognize the potential consequences of the proposed decision:

> [41] The duty to consult is not triggered by historical impacts. It is not the vehicle to address historical grievances. In *Carrier Sekani* [2010 SCC 43], this Court explained that the Crown is required to consult on "adverse impacts flowing from the specific Crown proposal at issue — not [on] larger adverse impacts of the project of which it is a part. The subject of the consultation is the impact on the claimed rights of the *current* decision under consideration" (*Carrier Sekani*, at para. 53 (emphasis in original)).

262. According to the Supreme Court of Canada, there is no duty to consult about past wrongs and continuing breaches unless the contemplated decision would result in new or novel adverse impacts on Aboriginal or treaty rights. The matter in front of the Commission is a licence renewal application that involves no new project, undertaking, or activities at the Nordion facility. Instead, Nordion is simply asking to continue operating its Class IB nuclear substance processing facility in the same manner as during the previous licence period.

263. The continued operation of Nordion's Class IB nuclear substance processing facility does not give rise to any new or novel adverse impacts that would trigger a duty to consult. While continuing impacts associated with the facility's operation are noted, none are new or novel. Accordingly, the Commission concludes that no duty to consult is engaged in relation to the current licence renewal application.

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[184] *Chippewas of the Thames*, *supra* note 114.

264. The Commission acknowledges that KFN's previous submissions (see paragraph 252) discuss adverse impacts on KFN's rights. However, those impacts relate to the construction of a new waste disposal facility at a different site.

265. Importantly, the Federal Court recently recognized that KFN did not identify new or novel adverse impacts distinct from those associated with the original taking of the lands in the 1940s for nuclear development purposes.[185] The Court further determined that the Commission reasonably considered the evidence presented, based on the consultation record, and reached reasonable, supported conclusions regarding the impacts of the proposed NSDF on KFN's asserted section 35 rights.

266. Therefore, the Commission concludes that its responsibility to uphold the honour of the Crown and fulfill its constitutional obligations with regard to Indigenous engagement — interpreted through the lens of the UN Declaration — has been satisfied. The renewal of Nordion's Class IB licence does not involve any new licensed activities that would introduce new environmental impacts or change the licensed activities at the Nordion site. As such, the Commission finds that no new or novel adverse impacts to potential or established Indigenous and/or treaty rights would arise from this licence renewal.[186]

267. The Commission notes that the duty to consult involves a dialogue, with both "informational and response components" requiring the Crown to listen to the views and concerns about potential impacts of Crown decision-making on Aboriginal or treaty rights, and, where necessary and possible, to modify the action or decision to minimize infringement of those rights.[187] When the duty is triggered at the low end of the spectrum, the Crown is required to provide notice and to engage in a manner that conveys information about the decision and identifies possible adverse impacts based on the Crown's knowledge of the Indigenous interests at stake. Further, the Crown must listen to and carefully consider the concerns of the Indigenous Nations and attempt to minimize adverse impacts on rights.[188] In assessing whether this duty has been fulfilled, "[t]he focus is on the process and whether reasonable efforts were made, and not on the substantive outcome."[189]

268. Although the application before the Commission did not trigger the duty to consult, the Commission is of the view that the consultation process conducted as part of the public hearing for this licence renewal application, as well as the consultation activities undertaken by CNSC staff and the engagement efforts carried out by Nordion, would have been sufficient to meet the obligations of the Crown at the low end of the spectrum.

269. As discussed in section 1.0 of this *Record of Decision,* participant funding was provided to facilitate Indigenous Nations and communities' participation in the hearing process, enabling them to share their concerns and views with the

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[185] *Kebaowek First Nation*, *supra* note 116 at para 209.
[186] *Rio Tinto*, *supra* note 113 at paras 45 and 49.
[187] *Mikisew Cree First Nation v Canada (Minister of Canadian Heritage)*, 2005 SCC 69 at para 64. [*Mikisew Cree*]
[188] *Mikisew Cree* at para 64.
[189] *Roseau River First Nation v Attorney General of Canada*, 2023 FCA 163 at para 34, citing *Coldwater First Nation v Attorney General of Canada*, 2020 FCA 34 at paras 29, 53.

Commission. In addition, as discussed in paragraph 211, changes were made through the hearing process to foster an environment of partnership and respect. These changes included reformatting the hearing space and seating arrangement to better reflect and include Indigenous perspectives, and extending the time allotted for oral interventions. The Commission is satisfied that these adjustments to the hearing process were valuable, and contributed to upholding the honour of the Crown by providing a responsive and robust process.

270. Based on the engagement and consultation activities summarized above, the information presented on the record, having read and heard the submissions of all Indigenous Nations and communities, and other participants, the Commission is satisfied that the honour of the Crown has been upheld in this matter.

271. The Commission encourages Nordion to work collaboratively with Indigenous Nations and communities to identify opportunities for improved involvement in ongoing activities at the Nordion facility. The Commission expects Nordion to build upon the feedback received during this hearing in order to strengthen its engagement with Indigenous Nations and communities in relation to its licensed activities. The Commission trusts that Nordion has heard the perspectives and concerns shared by Indigenous Nations and communities regarding the waste streams and the lack of meaningful engagement.

3.6 Other matters of regulatory importance

3.6.1 Public engagement

272. A public information and disclosure program (PIDP) is a regulatory requirement for licence applicants and licensed operators of Class IB nuclear facilities. Licence condition 1.4 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a public information and disclosure program. REGDOC-3.2.1, *Public Information and Disclosure*[190] sets out requirements for public information programs, disclosure protocols, and related documentation as they relate to licensed activities.

273. Nordion provided information on its public engagement in section 4.16 of CMD 25-H6.1. Nordion submitted that it has implemented a PIDP in accordance with REGDOC-3.2.1, with the objective of raising awareness of its operations and actively engaging stakeholders through timely and transparent communication. Nordion also outlined its engagement activities specific to this licence renewal application, including notifying the local community about the application, hosting a public outreach event in October 2024, and conducting its bi-annual survey in November 2024. Nordion reported that feedback from the outreach event and the survey indicated that the community was generally open to a 25-year licence.

274. Noting the Commission's duty under paragraph 9(b) of the NSCA to disseminate objective scientific, technical and regulatory information to the public, CNSC staff

[190] CNSC REGDOC-3.2.1, *Public Information and Disclosure*, May 2018.

submitted its public engagement activities in section 3.2 of CMD 25-H6, which include informing the public of regulatory activities through regular updates to its website and social media, including posting of publicly webcast Commission proceedings. Its activities also include encouraging public participation in Commission hearings, and hosting or participating in outreach and information sessions. In relation to the Nordion facility, CNSC staff also noted engagement opportunities associated with the annual UNSPF RORs.

275. In addition, CNSC staff submitted its assessment of Nordion's public engagement activities in section 3.3 of CMD 25-H6, through monitoring of Nordion's implementation of its PIDP, review of the yearly program updates to Nordion's PIDP, and assessment of Nordion's engagement activities. CNSC staff concluded that the PIDP meets regulatory requirements under REGDOC-3.2.1 and demonstrates strong communication activities of appropriate and timely health and safety information to the public and community members.

276. Based on the information on record, as described above, the Commission concludes that Nordion has adequate measures in place to communicate to the public information about the health, safety and security of persons and the environment, including information relevant to the continued operations of the Nordion facility.

3.6.2 Cost recovery

277. Paragraph 24(2)(c) of the NSCA requires that a licence application be accompanied by the prescribed fee. The *CNSC Cost Recovery Fees Regulations*[191] (CRFR) set out specific requirements based on the activities to be licensed. An applicant for a Class IB facility licence is subject to Part 2 of the CRFR, under which fees are determined based on the regulatory activity plan.

278. In section 4.1 of CMD 25-H6, CNSC staff confirmed that Nordion is in good standing with respect to the CRFR requirements and has paid all applicable fees in full. Based on Nordion's previous performance, CNSC staff expressed no concerns regarding the payment of future cost recovery fees.

279. In Table 1 of CMD 25-H6.1, Nordion submitted that the proposed 25-year licence term would have no impact on its compliance with the CRFR, as it currently pays licensing fees annually and would continue to do so under the extended licence.

3.6.3 Decommissioning Plans and financial guarantee

280. The NSCA and its regulations require licensees to make adequate provision for the safe decommissioning of their facilities and for the long-term management of waste produced during the life of a facility. Paragraph 3(k) of the CINFR requires that a licence application contain the proposed plan for the decommissioning of the nuclear facility or of the site. Subsection 24(5) of the NSCA requires licensees to

[191] SOR/2003-212.

provide a financial guarantee in a form that is acceptable to the Commission. Paragraph 3(1)(l) of the GNSCR requires a licence application to contain a description of any proposed financial guarantee related to the activity for which a licence application is submitted. Licence condition 12.2 of NSPFOL-11A.01/2025 requires Nordion to implement and maintain a decommissioning strategy. Licence condition 1.3 requires Nordion to maintain a financial guarantee for decommissioning that is acceptable to the Commission.

281. REGDOC-3.3.1, *Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities*,[192] sets out requirements and guidance for applicants and licensees regarding the establishment and maintenance of funding for the decommissioning of facilities and termination of activities licensed by the CNSC.

282. In section 4.11.5 of CMD 25-H6.1, Nordion submitted that it has developed a Preliminary Decommissioning Plan (PDP) and a financial guarantee in accordance with REGDOC-2.11.2, *Waste Management Decommissioning*[193] and REGDOC-3.3.1. Nordion reported that the PDP and the financial guarantee were approved by the Commission in February 2023 and remain sufficient for the licensed activities.

283. In section 2.11 of CMD 25-H6, CNSC staff confirmed that Nordion's 2022 PDP met the applicable regulatory requirements. CNSC staff also noted that Nordion is required to revise its decommissioning plans on a 5-year cycle. Accordingly, Nordion's next decommissioning plan submission is due in 2027.

284. In section 4.2 of CMD 25-H6, CNSC staff confirmed that Nordion maintains a financial guarantee in accordance with regulatory requirements. CNSC staff noted that the Commission accepted Nordion's revised financial guarantee in 2023.[194]

285. The AOPFN noted the absence of consultation regarding Nordion's PDP last revised in 2022 and expressed interest in co-developing a consultation process for any future revisions to the plan.[195]

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[192] CNSC Regulatory Document, REGDOC-3.3.1, *Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities*, January 2021.
[193] CNSC Regulatory Document, REGDOC-2.11.2, *Waste Management Decommissioning*, January 2021.
[194] CNSC Record of Decision, *Application for Acceptance of Nordion's Revised Financial Guarantee*, February 16, 2023. In this application, Nordion submitted a revised preliminary decommissioning plan and financial guarantee, reflecting the removal of costs associated with the decommissioning of the NMPF. These costs were previously under Nordion's Class IB licence, later under BWXT Medical's Class IB licence authorized by the Commission in 2021.
[195] CMD 25-H6.8, pages 12-13.

286. The Commission inquired about the scope of Nordion's PDP and its current status in relation to the development of a detailed decommissioning plan, considering the anticipated long operational life of the facility. CNSC staff outlined the scope of each plan and explained that, as a lifecycle regulator, the CNSC requires the preparation of an evergreen PDP early in the facility's lifecycle. This ensures the facility is designed and constructed in a way that allows for future decommissioning, while also providing a cost estimate to support financial accountability and ensure that necessary funds remain available throughout the facility's lifespan. A detailed decommissioning plan, which includes more detailed information on work packages, would be required 2-5 years prior to the start of decommissioning activities. An AOPFN representative noted that the Nation's interests regarding Nordion's decommissioning plans could be addressed through a funded engagement process.[196]

287. The Commission is satisfied that Nordion continues to maintain a financial guarantee acceptable to the Commission. The Commission acknowledges that Nordion's next PDP submission is due in 2027, and that any future revisions to the financial guarantee amount or instruments must be accepted by the Commission.

3.6.4 Operational Independence of Nordion from BWXT Medical

288. Nordion and BWXT Medical operate their Class IB activities under separate Class IB licences, as described in footnote 2.

289. In section 4.18 of CMD 25-H6.1, Nordion provided the Commission with information on key shared programs between Nordion and BWXT Medical, including the emergency response program, security program, environmental monitoring,[197] and calibration services program. Nordion submitted that the two companies have co-developed procedures outlining the relationship and shared programs. Despite sharing a site and several programs, Nordion noted that each licensee remains independently responsible for activities conducted under its licence.

Discussion

290. The Commission asked questions about the interface between Nordion and BWXT Medical regarding emergency planning. A Nordion representative explained that the two companies share a joint emergency response program for the Nordion site. As the owner of the property, Nordion leads any site wide emergency response, with assistance or input from BWXT Medical through a pre-defined framework, as needed. The Nordion representative emphasized that both companies have obligations under their respective licences to support the shared programs.[198]

[196] Transcript, June 4, 2025, pages 139-143, 145-146.
[197] CMD 25-H6.1A, page 5.
[198] Transcript, June 4, 2025, pages 54-56.

291. The Commission enquired about the interface between Nordion and BWXT Medical regarding the management of common services such as sewer and electrical systems at the Nordion site. A Nordion representative clarified that Nordion is responsible for, and leads, the management of base building systems — such as sewer, water, and electrical — and coordinates with BWXT Medical as needed. Nordion also acts as the sole point of contact with the municipality and municipal utility providers.[199]

292. Noting the co-location of Nordion and BWXT Medical on the same site and the distinct work carried out by the two companies, the Commission enquired whether Nordion's operations rely in any way on BWXT Medical, and whether there are any lessons learned from operating on a shared site. Nordion representatives explained that while the two companies cooperate as effectively as possible in their business operations, their infrastructures were established separately and remain distinct. The two companies had established a joint EHS committee that oversees the site-wide safety and licensed activities.[200] CNSC staff shared its observation regarding the co-location of the two companies, highlighting shared responsibilities such as event reporting, participation in the joint EHS committee, and joint emergency exercises. CNSC staff emphasized that each licensee remains individually responsible for their respective licensed activities, and that the regulatory focus continues to be centered on safety.[201] A representative from BWXT Medical further confirmed that, notwithstanding the shared services, the operations of the two companies — including the manufacturing of products — are distinct and independent.[202]

293. The Commission is satisfied that Nordion's operations are independent and do not rely on those of BWXT Medical. While acknowledging the existence of shared services and programs between the two companies, the Commission is satisfied with the structure and implementation of these arrangements, and finds that they do not compromise the independence or regulatory responsibilities of either company.

3.7 Licence length and conditions

294. Nordion has applied to renew its Class IB nuclear substance processing facility operating licence for a period of 25 years. Its current licence will expire on October 31, 2025, and Nordion did not request changes to its licensed activities. CNSC staff recommended that the Commission renew the licence for a period of 25 years, with a requirement for two performance updates.[203]

295. Information related to the proposed 25-year licence term is detailed below. Information concerning specific SCAs was addressed in section 0 of this *Record of Decision*.

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[199] Transcript, June 4, 2025, pages 56-57.
[200] In the event of disagreements between the two companies, Nordion — being the landlord and owner of the site — makes the final decision.
[201] Transcript, June 4, 2025, pages 75-80.
[202] Transcript, June 4, 2025, pages 212-213.
[203] On page 100 of CMD 25-H6, CNSC staff submitted that the only proposed change to the licence is the numbering under the General sub-heading, the wording of the licence conditions remains the same.

3.7.1 Licence length

296. Nordion applied for a 25-year licence term, with the intent to:

- provide long-term assurance of supply stability to the global healthcare industry
- support the viability of recycling and end-of-life solutions for Co-60 among end-users
- enable greater confidence in planning long-term investments in its facility

297. Nordion provided the following basis for requesting a 25-year licence term:

- more than 50 years of safe facility operations and the implementation of robust programs that have consistently protected both people and the environment
- ongoing commitment to investment and continuous improvement to maintain and enhance its safety systems.

298. In Table 1 under section 3 of CMD 25-H6.1, Nordion provided its assessment of the potential impacts of a 25-year licence term and concluded that an extended term would have no impact on:

- the safe operation of the facility
- Nordion's compliance with applicable regulations, including future amendments or new regulations
- the level of performance review and regulatory oversight[204]
- the PDP update
- public and Indigenous engagement efforts[205]

299. In section 4.3 of CMD 25-H6, CNSC staff provided the basis for its recommendation, including that:

- the criteria for making recommendations to the Commission on licence periods, as outlined in section 4.3.1 of CMD 25-H6, are satisfied
- the CNSC has processes in place to achieve safety objectives on a continual basis, which align with international best practices
- the CNSC has a regulatory framework in place to maintain regulatory oversight of the Nordion facility regardless of the licence term
- the Commission's regulating power is not impacted by a longer licence term[206]

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[204] Nordion submitted that it will continue to submit annual compliance reports and CNSC program evaluations will continue at a frequency determined by the CNSC.
[205] Nordion submitted its plan to increase efforts to foster a positive relationship with the community and Indigenous Nations and raise awareness of Nordion's business activities.
[206] CMD 25-H6, pages 67-68.

300. CNSC staff also highlighted various engagement opportunities, including Commission hearings, annual UNSPF RORs — which have proven to be effective mechanisms for engagement — and regular meetings between CNSC staff and Indigenous Nations. To ensure that meaningful engagement remains available throughout a longer licence term, such as 25 years, CNSC staff recommended that Nordion provide two performance updates to the Commission during the licence period, at approximately 8 years and 16 years following the issuance of the licence.

301. In its intervention, the AOPFN expressed concern about the adequacy of regulatory oversight given the proposed 25-year licence term with two performance updates. The AOPFN recommended either a shorter licence period or, if a 25-year licence is adopted, the conduct of formal reviews every 5 years.[207]

302. KFN also opposed the proposed 25-year licence term and recommended that any licence issued not exceed 5 years. KFN submitted its view that Nordion's application does not meet the criteria outlined in section 4.3.1 of CMD 25-H6 due to the lack of proper hazard characterization, the lack of a management system that ensures the disclosure of waste data, and the lack of information disclosure.[208]

303. KFN expressed concern that a longer licence term would undermine its right to be consulted and meaningfully engaged throughout the project's lifecycle, erode opportunities for information sharing, and limit the CNSC's ability to publicly demonstrate regulatory oversight and its commitment to protecting the environment and human health from nuclear substances.[209]

304. The Commission asked Nordion for its plan to address changes in the surrounding environment that are beyond Nordion's control — such as municipal decisions, population shifts, and land use — over the proposed licence period. A Nordion representative noted that the company stays informed of proposed changes, including by-law updates and shifts in municipal goals and objectives that may impact its safety case and various programs. This proactive awareness enables Nordion to begin planning early. The representative added that Nordion achieves this through its active involvement in the Kanata North business community and its regular community engagement and communication efforts.[210]

305. Asked to explain the regulatory oversight interface for managing changes to the Nordion facility over the proposed licence period — including equipment changes — CNSC staff reported that there are multiple touch points in its regulatory framework, which includes oversight of:[211]

- aging management under the fitness for service SCA
- maintenance and monitoring of the SSCs under the management system SCA

[207] CMD 25-H6.8, pages 10-11.
[208] Transcript, June 4, 2025, pages 168, 194-195.
[209] CMD 25-H6.11, section 4.
[210] Transcript, June 4, 2025, pages 61-62, 66-67.
[211] Transcript, June 4, 2025, pages 62-64.

- aging considerations of the facility and SSCs under the safety analysis SCA
- aging management of the fire protection systems under the fire protection SCA

306. Asked to explain how changes in Nordion's organization or ownership would be managed during the proposed licence term, CNSC staff responded that, in such a hypothetical scenario, a licence transfer process would be considered.[212] As part of this process, CNSC staff would assess whether the prospective applicant is qualified to carry on the activities authorized under the licence.[213]

307. Noting Nordion's projected market growth, the Commission enquired about the potential impacts on Nordion's operations. Nordion representatives responded that, while increased market demand and production levels are expected to generate greater volumes of waste and necessitate a larger workforce, no modifications to the facility's structure would be required, as it has sufficient capacity to accommodate such growth. To prepare for this anticipated increase, Nordion has developed plans for:[214]

- engineering enhancements to improve the efficiency of Co-60 source utilization
- initiatives to support customers in optimizing their use of Nordion's products, thereby reducing overall demand
- exploration of software and artificial intelligence technologies to further enhance operational efficiency

308. CNSC staff outlined its framework for assessing a licensee's proposed modifications. If a proposed modification is found to fall outside the licensing basis, the matter would be brought before the Commission, as it may require a licence amendment.[215]

309. The Commission enquired about the content of the comprehensive performance updates recommended by CNSC staff, as well as opportunities for public and Indigenous engagement. CNSC staff noted that while the content of the updates may evolve over time, the licensee would be expected to provide updates on:

- the 14 SCAs, including any program updates and the implementation of codes and standards
- public engagement activities
- Indigenous engagement activities
- planned activities anticipated between the current and next reporting periods

[212] A licence transfer is subject to the Commission's authority under section 24 of the NSCA.
[213] Transcript, June 4, 2025, pages 64-65.
[214] Transcript, June 4, 2025, pages 70-73.
[215] Transcript, June 4, 2025, pages 73-75.

310. CNSC staff reported that performance updates are typically presented during Commission meetings, with funding made available to support public and Indigenous participation. In addition, CNSC staff would provide a presentation outlining their assessment of the licensee's performance over the reporting period.[216]

311. The Commission asked what other forms of oversight were planned during the licence period, beyond the comprehensive performance review proposed every 8 years. CNSC staff explained that oversight activities are conducted as part of its regular compliance program established for Nordion, which is reviewed annually. Compliance activities include desktop reviews — such as those of annual compliance reports and updates to program documents, including the safety analysis report, ERA, fire hazard assessment, PDP, and other documents identified in the Licence Conditions Handbook — as well as inspections. CNSC staff noted that the frequency and scope of inspections can be adjusted using a risk-informed approach. In addition, CNSC staff identified other opportunities for regulatory review throughout the licence period, including RORs, financial guarantee updates, event reporting, and potential licence amendments.[217]

312. The Commission enquired about the process for implementing new or updated REGDOCs, codes, and standards for Class IB licensees. CNSC staff explained that the process would be initiated by CNSC staff sending a letter to inform Nordion of the new requirements for implementation. CNSC staff noted that the process is independent of the licence term or the timing of performance reviews. Nordion representatives echoed the process, noted Nordion's input during REGDOC and CSA standard updates, and emphasized Nordion's commitment to regulatory compliance, safety culture, and continuous improvement.[218]

313. In response to KFN's concern regarding opportunities for Indigenous engagement, CNSC staff outlined several mechanisms to ensure transparency, including the TORs, regular updates, provision of documentation, oversight of Nordion's engagement activities, and efforts to enhance engagement through the RORs.[219]

314. Based on the information reviewed, the Commission concludes that a 25-year licence term — with two comprehensive performance updates to be provided at 8 and 16 years after the licence is issued, including public participation — is appropriate.

315. The Commission's decision is based on its finding that Nordion is not requesting any changes to its current licence, and that Nordion's application and past performance satisfy the criteria outlined in section 4.3.1 of CMD 25-H6. Specifically, the Commission notes that:

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[216] Transcript, June 4, 2025, pages 216-220.
[217] Transcript, June 4, 2025, pages 220-222.
[218] Transcript, June 4, 2025, pages 224-230.
[219] Transcript, June 4, 2025, pages 222-224.

- the hazards associated with the operation of the Nordion facility are well characterized, their impacts are well understood, and they are within the scope considered in the environmental safety case[220]
- Nordion has a mature and effective management system and supporting programs in place, as discussed in section 3.4.1 of this *Record of Decision*
- Nordion has effective compliance programs in place and a good history of operating experience and compliance in carrying out the licensed activities (Nordion's performance was "satisfactory" in all SCAs over the current licence period – see discussion in section 3.4 of this *Record of Decision*)

316. The Commission notes that the CNSC's regulatory oversight of licensed activities operates independently of the licence period and is grounded in a robust regulatory framework. The structure of the licence and the Licence Conditions Handbook is designed to support continuous improvement within the licensing basis over time, including updates to regulatory requirements through amendments to regulations under the NSCA, as well as updates to REGDOCs and CSA Group standards. Additionally, Nordion is required to update its safety analysis, ERA and PDP at regular intervals, at least every 5 years. The Commission is satisfied that, within this structure, Nordion's programs and procedures will continue to be maintained and remain adequate throughout the 25-year licence period, with compliance oversight by CNSC staff.

317. Furthermore, the Commission notes that, in accordance with Section 25 of the NSCA, it may, at any time, amend, suspend, revoke, or replace a licence under the conditions prescribed in the GNSCR. Accordingly, the Commission determines that the extended licence term in no way diminishes or compromises the robustness of regulatory oversight as mandated and enabled by the NSCA. CNSC staff may bring any matter to the Commission's attention, at any time, as required.

318. The Commission is of the view that providing opportunities for communities and intervenors to express their views is essential to maintaining ongoing dialogue with members of the public and Indigenous Nations and communities. The Commission considers that public proceedings held approximately 8 and 16 years after the issuance of the licence would serve as valuable forums for such engagement. These proceedings would offer opportunities for both oral and written participation by all interested members of the public and Indigenous Nations and communities. The Commission also encourages Indigenous Nations and communities, and members of the public to participate in any future Commission proceedings related to Nordion, as applicable.

3.7.2 Delegation of authority

[220] The hazards characterization is documented through Nordion's Safety Analysis Reports, Environmental Risk Assessment and Fire Hazard Assessment, which are part of the licensing basis for the Nordion facility and are reviewed at a minimum on a 5-year frequency (CMD 25-H6, section 4.3.1).

319. In section 4.4 of CMD 25-H6, CNSC staff recommended that the Commission delegate authority for licence condition 4.2 ("The licensee shall implement and maintain a program for reporting to the Commission or a person authorized by the Commission.") to the following CNSC staff:

- Director, Nuclear Processing Facilities Division
- Director General, Directorate of Nuclear Cycle and Facilities Regulation
- Executive Vice-President and Chief Regulatory Operations Officer, Regulatory Operations Branch

320. By delegating its authority for the purposes of licence condition 4.2, the Commission would be delegating the administration of licence condition 4.2 to the above CNSC staff members.

321. The Commission delegates its authority for the purposes of licence condition 4.2, as recommended by CNSC staff. The Commission is satisfied that this approach is reasonable.

3.7.3 Conclusion on licence length and conditions

322. Based on the information examined by the Commission, the Commission is satisfied that a 25-year licence term with two comprehensive performance updates to be presented in public Commission meetings is appropriate for Nordion's Class IB licence. The Commission also accepts CNSC staff's recommendation regarding the delegation of authority for the purpose of licence condition 4.2. The Commission notes that CNSC staff can bring any matter to the Commission as required.

4.0 CONCLUSION

323. The Commission has considered Nordion's licence renewal application, along with the information and submissions presented by all participants. The Commission has considered whether the duty to consult has been triggered by Nordion's licence renewal application and whether the honour of the Crown has been satisfied. The Commission concludes that Nordion's licence renewal application did not trigger the duty to consult Indigenous Nations and communities. The Commission is satisfied that the honour of the Crown has been upheld in all the circumstances of this matter.

324. The Commission is satisfied that Nordion is qualified to carry on the activities that the renewed licence will authorize, and that, in carrying on these activities, Nordion will make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed. Pursuant to section 24(4) of the *Nuclear Safety and Control Act*, the Commission renews Nordion's Class IB licence for the Nordion facility located in Ottawa, Ontario for a period of 25 years. The renewed licence, NSPFL-11A.00/2050, is valid from

November 1, 2025 until October 31, 2050. The Commission also delegates authority to CNSC staff with respect to the administration of licence condition 4.2.

325. The Commission directs Nordion to provide a comprehensive performance update to the Commission on the conduct of its licensed activities every 8 years of the licence period, i.e., in 2033 and 2041. These updates will be presented at public Commission meetings that will allow for the participation, both orally and in writing, of members of the public and Indigenous Nations and communities. The Commission intends that these public meetings will allow a meaningful opportunity to hear and discuss the views of members of the public and Indigenous Nations and communities. The Commission expects Nordion and CNSC staff to continue strengthening their relationship with Indigenous Nations and communities and provide updates in this regard as part of the comprehensive performance updates.

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August 28, 2025

Pierre F. Tremblay
President,
Canadian Nuclear Safety Commission

Date

APPENDIX A – LIST OF INTERVENORS

Intervenors – Oral Presentations	**Document Number**
Algonquins of Pikwàkanagàn First Nation, represented by Andre Carle, Howard Bernard, and Amanda Two-Axe Kohoko	CMD 25-H6.8 CMD 25-H6.8A
Kebaowek First Nation, represented by Justin Roy, Rosanne Van Schie, and Kerrie Blaise	CMD 25-H6.11 CMD 25-H6.11A CMD 25-H6.11B
Canadian Nuclear Isotope Council, represented by Evan Cameron	CMD 25-H6.3
Organization of Canadian Nuclear Industries, represented by Brian Fehrenbach	CMD 25-H6.7
BWXT Medical Ltd., represented by Tim Mahilrajan	CMD 25-H6.9
Intervenors – Written submissions	**Document Number**
Ontario Power Generation Inc.	CMD 25-H6.2
Bruce Power	CMD 25-H6.4
Gamma Industry Processing Alliance	CMD 25-H6.5
International Irradiation Association	CMD 25-H6.6
Women in Nuclear Canada	CMD 25-H6.10