



Record of Decision

DEC 26-H101

In the Matter of

Applicant Hydro-Québec

Subject Application to renew the power reactor
decommissioning licence for the
Gentilly-2 Facilities

Date of June 16, 2026
Decision

RECORD OF DECISION – DEC 26-H101

Applicant:	Hydro-Québec
Address/Location:	75 René-Lévesque Boulevard West, Montréal, QC, H2Z 1A4
Purpose:	Application to renew the power reactor decommissioning licence for the Gentilly-2 Facilities
Application received:	March 31, 2025
Date of decision:	June 16, 2026
Panel of Commission:	Dr. M. Lacroix

Decision: Licence renewed for a period of 20 years

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1.0 INTRODUCTION

1. Hydro-Québec submitted an application to the Canadian Nuclear Safety Commission¹ (CNSC or Commission) under subsection 24(2) of the [Nuclear Safety and Control Act](#)² (NSCA) for a 20-year renewal of the power reactor decommissioning licence (PRDL) for the [Gentilly-2 Facilities](#). The current licence held by Hydro-Québec, PRDL 10.00/2026, is valid until June 30, 2026, and authorizes the licensee to decommission the nuclear facilities at Gentilly-2 and operate the associated radioactive waste management facility. The nuclear facilities are on the south shore of the St. Lawrence River in Bécancour, Quebec, around 15 km east of the city of Trois-Rivières, on the traditional and unceded territories of the Abenaki people under the council of the W8banaki, and the traditional land of the Wendat.
2. The Gentilly-2 CANDU reactor had a nominal capacity of 675 megawatts electrical (MWe). It went into commercial operation in 1983 and was permanently shut down on December 28, 2012. In December 2020, Hydro-Québec completed the transfer of all its used fuel to CANDU dry storage modules (CANSTOR).³ Over the proposed 20-year licence period, Hydro-Québec would continue decommissioning activities and the operation of the waste management facility.
3. Over the next licence period, Hydro-Québec plans to continue decommissioning work in the storage with surveillance phase, which involves the following main activities:
 - finalize the reconfiguration of common systems, including ventilation, drainage and electrical supply
 - monitor the site, particularly with regard to radiation, environment and safety
 - manage aging of systems, structures and components
 - maintain operational systems and equipment
 - demolish buildings and structures with little or no contamination

Issues

4. The Commission must determine whether the [Impact Assessment Act](#)⁴ (IAA) imposes any requirements in relation to the activities sought to be authorized in Hydro-Québec's application to renew the power reactor decommissioning licence. Satisfying any such requirements can be a prerequisite to licensing.
5. Pursuant to paragraphs 24(4)(a) and (b) of the NSCA, in considering whether to renew the licence, the Commission must be satisfied that Hydro-Québec:
 - is qualified to carry on the activity that the licence will authorize

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 S.C. 1997, c. 9.

³ CANSTOR refers to a dry storage system for used nuclear fuel from CANDU reactors, equipped with large concrete cylinders.

⁴ S.C. 2019, c. 28, s. 1.

- will, in carrying on that activity, make adequate provision for the protection of the environment, the health, safety and security of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed
6. 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 in 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 Aboriginal⁵ or treaty rights.⁶ As a result, the Commission must determine what engagement and consultation steps and accommodation measures are called for, and whether what has been done satisfies the obligation of consultation and, where appropriate, accommodation of implicated Aboriginal or treaty rights.

Public hearing in writing

7. On July 28, 2025, the Commission published a [Notice of Hearing in Writing and Participant Funding](#) for this matter, which invited requests to intervene by February 16, 2026.
8. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission, consisting of Dr. Marcel Lacroix, to review the application. The Commission, in conducting the public hearing in writing, considered submissions from Hydro-Québec [CMD 26-H101.1](#) (French only) and from CNSC staff [CMD 26-H101](#) and [CMD 26-H101.A](#) (safety). The Commission also considered written submissions from 5 intervenors (see Appendix A for a list of interventions).
9. In making its decision, the Commission directed questions to CNSC staff and to Hydro-Québec through [CMD 26-H101-Q](#) (French only). The Commission is satisfied with the completeness of the responses provided by CNSC staff in [CMD 26-H101.B](#) (French only) and by Hydro-Québec in [CMD 26-H101.1A](#) (French only).
10. In determining whether a public hearing will be held orally or in writing, the Commission relies on the guidance set out in subsection 20(3) of the NSCA: "All proceedings before the Commission shall be dealt with as informally and expeditiously as the circumstances and considerations of fairness permit". The Commission also takes into account factors such as whether the proposed licensing action would authorize new or different activities or the adoption of novel or controversial approaches, the complexity of the issues under consideration, the proposed timeline and the steps in the lifecycle of the facility or activity, and the extent of likely or anticipated participation from intervenors. Given the nature of this matter, the Commission determined that a hearing in writing would be appropriate.

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 section 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.

Participant Funding Program

11. Pursuant to paragraph 21(1)(b.1) of the NSCA, the Commission has 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 [July 2025](#), up to \$75,000 in funding was made available through the CNSC's PFP to review Hydro-Québec's licence renewal application and associated documents, and to provide the Commission with value-added information through topic-specific interventions. A funding review committee (FRC), independent of the CNSC, reviewed the funding applications received and [made recommendations on the allocation of funds](#). Based on the recommendations from the FRC, the CNSC awarded a total of \$49,050 to 4 applicants: the Canadian Coalition for Nuclear Responsibility, Jocelyn Simon Daigle, Opal A. Roszell and the Regroupement des organismes environnementaux en énergie.

2.0 DECISION

12. For the reasons detailed below, the Commission finds that:
 - the IAA does not impose any obligation upon the Commission in this matter
 - the contemplated licence renewal does not present any novel adverse impact on any potential or established Indigenous and/or treaty rights
 - the Commission has upheld the honour of the Crown and its constitutional obligations to Indigenous Nations and communities
 - Hydro-Québec is qualified to carry on the activity that the licence would authorize
 - Hydro-Québec, in carrying on these activities, will make adequate provision for the protection of the environment, the health, safety and security of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed
13. Therefore, the Commission, pursuant to section 24 of the NSCA, renews the power reactor decommissioning licence issued to Hydro-Québec for the Gentilly-2 Facilities. The renewed licence, PRDL 10.00/2046, is valid from July 1, 2026, to June 30, 2046, unless otherwise suspended, amended, revoked or replaced.

14. The Commission includes in the licence the conditions recommended by CNSC staff in [CMD 26-H101](#). The Commission also delegates authority for the purposes of licence condition 15.1, as recommended by CNSC staff, to the following positions:
 - Director, Wastes and Decommissioning Division
 - Director General, Directorate of Nuclear Cycle and Facilities Regulation
 - Executive Vice-President and Chief Regulatory Operations Officer
15. The financial guarantee for Hydro-Québec's Gentilly-2 Facilities consists of an irrevocable commitment from the Government of Quebec and a trust fund. The Commission approves the increase in the Government of Quebec irrevocable guarantee to \$1,100M on behalf of the Province of Quebec.
16. The Commission directs that Hydro-Québec, at the midpoint of the 20-year licence and no later than June 2036, provide a comprehensive update on the conduct of its licensed activities and on its compliance with requirements. The mid-term update must include an overview of the implementation of its licensed activities and compliance with regulatory requirements, as well as Hydro-Québec's ongoing Indigenous engagement efforts regarding its facilities. The public and Indigenous Nations and communities must have the opportunity to participate in the mid-term update.

3.0 ISSUES AND COMMISSION FINDINGS

17. In making its licensing decision, the Commission considered a number of relevant issues and submissions relating to Hydro-Québec's qualification to carry on the licensed activities. The Commission also considered the adequacy of the proposed 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 analyses for its decision in this matter are set out in the following sections of this record of decision:
 - Section 3.1: Applicability of the *Impact Assessment Act*
 - Section 3.2: Assessment of Hydro-Québec's licence renewal application
 - Section 3.3: Summary of the views of hearing participants
 - Section 3.4: Hydro-Québec'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
19. Applicability of the IAA is a preliminary issue that the Commission must address first. The discussion in sections 3.2 to 3.4 of this record of decision provides important context and analysis that inform the decisions set out in sections 3.5 to 3.7.

3.1 Applicability of the *Impact Assessment Act*

20. This application does not trigger any of the requirements under the IAA for an impact assessment.
21. Pursuant to the IAA and the [Physical Activities Regulations](#)⁷ 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 is not designated under the *Physical Activities Regulations* as requiring an impact assessment. Furthermore, it does not meet the definition of a project on federal lands.
22. Accordingly, the Commission is satisfied that an impact assessment under the IAA is not required for Hydro-Québec's application for a licence renewal. The Commission is also satisfied that there are no other applicable requirements of the IAA to be addressed in this matter.⁸

3.2 Assessment of Hydro-Québec's licence renewal application

23. The licence renewal application submitted by Hydro-Québec is complete and includes sufficient information for review by the Commission.
24. On March 31, 2025, Hydro-Québec [applied](#) to renew its licence for a 20-year period. In order to be complete, Hydro-Québec's licence application must meet the requirements of the NSCA, the [General Nuclear Safety and Control Regulations](#)⁹ (GNSCR), and other applicable regulations made under the NSCA. The Commission reviewed the licensee's application to determine its completeness.
25. Section 5 of the GNSCR sets out the requirements for a licence renewal application. Section 7 of the GNSCR states that an application for a licence renewal may incorporate by reference any information that is included in a valid, expired or revoked licence.

⁷ SOR/2019-285.

⁸ 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 Canada. This licence renewal does not engage any such applicable IAA requirements.

⁹ SOR/2000-202.

26. In section 1.2.2 of CMD 26-H101, CNSC staff reported having reviewed Hydro-Québec's application to undertake decommissioning activities, continue with storage and surveillance activities, and manage radioactive waste onsite. CNSC staff determined that the application complies with regulatory requirements. In Appendix A.2 to CMD 26-H101, CNSC staff reported that their assessment of Hydro-Québec's licence application included a completeness check, a sufficiency check, and a technical assessment against regulatory requirements.
27. The Commission concludes that Hydro-Québec's licence renewal application is complete and complies with the regulatory requirements for this type of application. It also includes sufficient information to support a decision on the proposed licence renewal, in accordance with subsection 24(2) of the NSCA.

3.3 Summary of the views of hearing participants

28. The Commission received 5 interventions for this hearing. The intervenors expressed their views on the following issues:
 - adequacy of the financial guarantee
 - lack of publicly available details to enable an informed assessment of the decommissioning project
 - tritium emissions at the Gentilly-2 plant
 - lack of a detailed decommissioning plan in both official languages
 - lack of in-depth characterization of the radioactive inventory of each major reactor component
 - radiation doses and duration of the proposed licence

3.4 Hydro-Québec's safety and control measures with respect to the safety and control areas

29. The Commission examined Hydro-Québec's proposed safety and control measures with respect to the CNSC's [safety and control areas](#) (SCAs), as well as CNSC staff's assessment of Hydro-Québec's performance in relation to the SCAs. CNSC staff submitted information on Hydro-Québec's performance in all 14 SCAs, reporting that Hydro-Québec had implemented and maintained the programs required by its licence and that Hydro-Québec's performance in all SCAs had remained "satisfactory" during the current licence period. CNSC staff based their conclusions on monitoring activities that included compliance inspections and document reviews.

3.4.1 Management system

30. Hydro-Québec has an appropriate management system in place that enables it to carry on the activities covered by the proposed licence renewal.

31. The management system SCA covers the framework that establishes the processes and programs required to ensure that Hydro-Québec achieves its safety objectives, continuously monitors its performance against these objectives, and fosters a healthy safety culture. Under condition 2.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a management system.
32. Pursuant to paragraph 3(d) of the [Class I Nuclear Facilities Regulations](#),¹⁰ an application for a licence in respect of a Class I nuclear facility, other than a licence to abandon, must contain “the proposed management system for the activity to be licensed, including measures to promote and support safety culture.” Section 3 of the GNSCR contains requirements that form the basis of a management system.
33. CNSC regulatory document¹¹ [REGDOC-2.1.1, Management System](#),¹² addresses the development and implementation of sound management practices and controls, while [REGDOC-2.1.2, Safety Culture](#),¹³ sets out requirements and guidance for fostering a healthy safety culture and for conducting safety culture assessments. CSA standard N286-12, *Management System Requirements for Nuclear Facilities*,¹⁴ provides an overall management framework and direction to develop and implement sound management practices and controls for the licensing basis.
34. In section 2.1 of its application, Hydro-Québec stated that it had implemented a management system in its facilities that complies with CSA standard N286-12. Hydro-Québec also indicated that it had assessed, monitored and enhanced the safety culture, in particular by the following means:
 - daily meetings between workers and managers
 - onsite observation by work managers
 - incidents reported and trends analyzed by the corrective action review committee
 - presentation to employees on the residual risks associated with the Gentilly-2 Facilities

¹⁰ SOR/2000-204.

¹¹ CNSC [regulatory documents](#) are typically referred to as REGDOCs.

¹² CNSC. REGDOC-2.1.1, *Management System*, May 2019.

¹³ CNSC. REGDOC-2.1.2, *Safety Culture*, April 2018.

¹⁴ CSA Group. N286-12, *Management System Requirements for Nuclear Facilities*, 2012 (R2022).

35. In section 3.1 of CMD 26-H101, CNSC staff confirmed that Hydro-Québec had implemented a management system that meets all regulatory requirements, including those set out in REGDOC-2.1.2 regarding safety culture, as well as CSA N286-12. CNSC staff indicated that they had conducted 2 inspections of the management system SCA, in 2017 and in 2023. The inspection team verified and confirmed that Hydro-Québec reviews its management system annually in order to maintain compliance with requirements and to improve its processes. CNSC staff reported having reviewed the corrective actions taken by Hydro-Québec following these inspections, and considered that those actions adequately addressed the non-compliances identified.
36. In [CMD 26-H101-Q](#), the Commission asked whether the project management structure at Gentilly-2, which involves 2 administrative units, could lead to an overlap of responsibilities, which might cause problems with the progress of the work. Hydro-Québec explained that since 2021, the Surveillance unit has been responsible for overseeing decommissioning, while the Maintenance unit has been responsible for carrying out decommissioning and maintenance activities. Hydro-Québec added that, in the long term, only the Surveillance unit will remain in place for the storage with surveillance phase; the Maintenance unit's resources will be integrated into Hydro-Québec's Operations and Maintenance units, which will take over the remaining maintenance activities.
37. The Commission concludes that Hydro-Québec has an appropriate management system to carry on its licensed activities. The Commission considers that Hydro-Québec has programs in place to ensure that the Gentilly-2 Facilities achieve the licensee's safety objectives, and to foster a healthy safety culture. The Commission's conclusion is based on the following factors:
- Hydro-Québec's management system complies with regulatory requirements, including those of CSA N286-12
 - the Commission considers that Hydro-Québec has fully implemented REGDOC-2.1.2 and is maintaining a healthy safety culture at the Gentilly-2 Facilities

3.4.2 Human performance management

38. Hydro-Québec has an appropriate human performance management program in place to enable it to carry on the activities covered by the proposed licence renewal.
39. The human performance management SCA covers activities that ensure that Hydro-Québec staff are sufficient in number in all relevant job areas and have the necessary knowledge, skills, procedures and tools in place to safely carry out their duties. Under condition 2.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a human performance management system.
40. Paragraph 12(1)(a) of the GNSCR requires that the licensee ensure the presence of a sufficient number of qualified workers to carry on the licensed activity safely and in

accordance with the Act, the regulations made under the Act and the licence. Furthermore, paragraph 12(1)(b) states that the licensee must train the workers to carry on the licensed activity in accordance with the Act, the regulations made under the Act and the licence.

41. Pursuant to paragraph 3(d.1) of the *Class I Nuclear Facilities Regulations*, a licence application must contain information on the proposed human performance program for the activity to be licensed, including measures to ensure workers' fitness for duty.
42. [REGDOC-2.2.2, Personnel Training](#),¹⁵ sets out requirements and guidance for the analysis, design, development, implementation, evaluation, documentation and management of training at nuclear facilities within Canada, including the essential principles and elements of an effective training system. [REGDOC-2.2.4, Fitness for Duty: Managing Worker Fatigue](#),¹⁶ sets out requirements and guidance of the CNSC with respect to managing worker fatigue for workers at high-security sites.
43. In section 2.2 of CMD 26-H101.1, Hydro-Québec provided information about its human performance management program, including training, personnel certification and fitness for duty programs. It indicated that its human performance management program meets the requirements set out in REGDOC-2.2.2, as well as [REGDOC-2.2.4, Fitness for Duty, Volume II: Managing Alcohol and Drug Use](#),¹⁷ and [REGDOC-2.2.4, Fitness for Duty, Volume III: Nuclear Security Officer Medical, Physical and Psychological Fitness](#).¹⁸
44. With respect to personnel training, Hydro-Québec stated that its human performance program and tools enable it to verify the implementation of the training process and compliance with regulatory requirements; in particular, operating experience (OPEX) is integrated into training activities.
45. Hydro-Québec indicated that its human performance program is assessed through site visits, as well as through annual management reviews and corrective action review committees. Hydro-Québec also reported that verifications carried out during site visits and inspections relate to the critical hazards identified by the company, and that these verifications also cover protective equipment, environmental protection, compliance with procedures and site maintenance.

¹⁵ CNSC. REGDOC-2.2.2, *Personnel Training*, Version 2, December 2016.

¹⁶ CNSC. REGDOC-2.2.4, *Fitness for Duty: Managing Worker Fatigue*, March 2017.

¹⁷ CNSC. REGDOC-2.2.4, *Fitness for Duty, Volume II: Managing Alcohol and Drug Use*, January 2021.

¹⁸ CNSC. REGDOC-2.2.4, *Fitness for Duty, Volume III: Nuclear Security Officer Medical, Physical and Psychological Fitness*, September 2018.

46. In section 3.2 of CMD 26-H101, CNSC staff confirmed that Hydro-Québec had demonstrated satisfactory performance throughout the licence period and met the regulatory requirements applicable to the human performance management SCA. CNSC staff also confirmed that Hydro-Québec continues to implement and update its training program to ensure that workers are fully qualified to carry out their duties in accordance with current regulatory requirements. CNSC staff noted that there is currently one position requiring certification at the Gentilly-2 Facilities: Senior Health Physicist. CNSC staff added that they had inspected Hydro-Québec's human performance management program, and when instances of non-compliance or aspects to be improved had been identified, Hydro-Québec had implemented corrective actions in a timely manner.
47. CNSC staff indicated that Hydro-Québec had committed to implementing [REGDOC-2.2.3, Personnel Certification, Volume III: Certification of Reactor Facility Workers, Version 2](#),¹⁹ by December 31, 2025.
48. With respect to worker fatigue management, the Commission noted the hours-of-work violations by Hydro-Québec since 2019 and requested an explanation in [CMD 26-H101-Q](#). CNSC staff indicated that there were several factors underlying those violations, including a lack of personnel, poor scheduling and a manual planning system that allowed for exceedances. CNSC staff also reported that Hydro-Québec had submitted an improvement plan involving measures to fill vacant positions, a review of hiring requirements to expand the candidate pool, and modifications to the planning software. CNSC staff added that the number of exceedances reported by Hydro-Québec had dropped in recent years.
49. The Commission concludes that Hydro-Québec has an appropriate human performance management program to carry on licensed activities. It considers that the workers at the Gentilly-2 Facilities are adequately trained and qualified in accordance with CNSC requirements. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec has a human performance management program that meets the requirements set out in REGDOC-2.2.2 and REGDOC-2.2.4
 - Hydro-Québec has committed to implementing REGDOC-2.2.3 by December 31, 2025
 - Hydro-Québec has a fitness for duty program to ensure that workers are able to perform their duties safely
 - Hydro-Québec has maintained an appropriate number of certified personnel throughout the current licence period
 - Hydro-Québec has addressed all inspection findings associated with the human performance management SCA

¹⁹ CNSC. REGDOC-2.2.3, *Personnel Certification, Volume III: Certification of Reactor Facility Workers*, Version 2, July 2014.

3.4.3 Operating performance

50. Hydro-Québec has an appropriate operating performance program in place that enables it to carry on the activities covered by the proposed licence renewal.
51. The operating performance SCA includes an overall review of the conduct of the licensed activities and the activities that enable effective performance, as well as improvement plans and significant future activities for Hydro-Québec's Gentilly-2 Facilities. Under condition 3.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain an operating performance program.
52. Pursuant to paragraph 7(c) of the *Class I Nuclear Facilities Regulations*, an application for a licence to decommission a Class I nuclear facility must contain information on the proposed measures, methods and procedures for carrying on the decommissioning. [REGDOC-3.1.2, Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills, Version 1.1](#),²⁰ sets out requirements and guidance for reports and notifications that licensees of Class I nuclear facilities must submit to the CNSC.
53. In section 2.3 of its application, Hydro-Québec provided information on the processes it has implemented to ensure that its nuclear facilities are operated in a manner that is safe and compliant with the conditions of its licence. Hydro-Québec submitted information about its operating policies and principles, and indicated that it had revised the policies and principles for the nuclear facility in 2021 to reflect changes in the facility's condition. Hydro-Québec also stated that it had revised the policies and principles for the operation of the storage facilities for radioactive waste and irradiated fuel in 2025 to reflect the operating conditions of the 3 storage areas, in light of the fact that the nuclear facility is being decommissioned, and that all irradiated fuel has been transferred to CANSTOR dry storage modules.²¹
54. Hydro-Québec indicated that it had submitted regulatory reports within the time frame required by [REGDOC-3.1.1, Reporting Requirements for Nuclear Power Plants](#),²² except for the quarterly safety report for the second quarter of 2022, which had been submitted on October 3 rather than September 30. CNSC staff reported that Hydro-Québec had committed to implementing REGDOC-3.1.1 by May 1, 2026.
55. In section 3.3 of CMD 26-H101, CNSC staff indicated that they had verified Hydro-Québec's compliance with the requirements of this SCA as part of their compliance verification activities, which included annual report reviews and inspections. CNSC staff reported that they had verified the review and implementation of the procedures, confirming that they are being followed, are up to date, and have undergone a formal development process that includes validation before a procedure can be implemented. CNSC staff conducted 12 focused inspections targeting specific

²⁰ CNSC. 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.

²¹ CANSTOR refers to a dry storage system for used nuclear fuel from CANDU (CANada Deuterium Uranium) reactors, equipped with large concrete cylinders.

²² CNSC. REGDOC-3.1.1, *Reporting Requirements for Nuclear Power Plants*, May 2024.

operating performance SCAs, and Hydro-Québec addressed each instance of non-compliance identified, which were all of low significance. CNSC staff reviewed the corrective actions taken by Hydro-Québec and deemed them satisfactory.

56. CNSC staff indicated that Hydro-Québec maintains a comprehensive suite of procedures across all programs and facilities. CNSC staff reported that Hydro-Québec continually updates the facility-specific procedures as needed.
57. CNSC staff presented the number of incidents reported by Hydro-Québec over the current licence period resulting from unplanned situations. CNSC staff indicated that they had been notified of 11 incidents by Hydro-Québec in 2023, and that 5 of those had involved false fire alarms. CNSC staff indicated that Hydro-Québec had taken acceptable corrective actions to address those reportable events. CNSC staff reported that Hydro-Québec had committed to implementing REGDOC-3.1.1 by May 1, 2026.
58. In section 3.3 of CMD 26-H101, CNSC staff indicated that they had not identified any regulatory issues in reviewing the reports required by Hydro-Québec's licence. CNSC staff concluded that Hydro-Québec is compliant with applicable regulatory requirements and that its performance meets the expectations of CNSC staff with respect to the operating performance SCA at the Gentilly-2 Facilities.
59. With regard to CANSTOR module sampling, the Commission requested information in [CMD 26-H101-Q](#) about the origin of the hydrogen present in the samples. CNSC staff explained that hydrogen production in dry storage facilities is a phenomenon that has been known for several decades and results from the accumulation of water in the cylinders, which produces hydrogen through radiolysis. According to CNSC staff, the potential environmental impacts of this observation are considered negligible. CNSC staff are of the view that Hydro-Québec has assessed the situation and taken measures to ensure the health and safety of its personnel and the protection of the environment.
60. The Commission concludes that Hydro-Québec has implemented and will maintain appropriate programs at its nuclear facilities to protect the environment and the health and safety of persons. The Commission's conclusion is based primarily on the following factors:
 - Hydro-Québec has operated its nuclear facilities in accordance with regulatory requirements over the current licence period
 - Hydro-Québec's operating procedures and programs comply with regulatory requirements
 - Hydro-Québec has committed to implementing REGDOC-3.1.1 by May 1, 2026
 - Inspection findings over the current licence period show that Hydro-Québec is continuing to implement and maintain an effective operating program

3.4.4 Safety analysis

61. Hydro-Québec has an appropriate safety analysis program in place that enables it to carry on the activities covered by the proposed licence renewal.

62. The safety analysis, which supports the overall safety case for the facility, involves the systematic evaluation of the potential hazards associated with the conduct of a licensed activity or the operation of a facility, and considers the effectiveness of preventive measures and strategies in reducing the effects of such hazards. Under condition 4.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a deterministic safety analysis program.
63. [REGDOC-2.4.1, Deterministic Safety Analysis](#),²³ sets out requirements and guidance for the preparation and presentation of a safety analysis that demonstrates the safety of a nuclear facility. [REGDOC-2.4.4, Safety Analysis for Class IB Nuclear Facilities](#),²⁴ clarifies 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
 - safety analysis documents, records and reporting
64. In section 2.4 of its application, Hydro-Québec provided information on its safety analysis program. It indicated that there is now a single safety report covering all the nuclear facilities at Gentilly-2. It also pointed out that the analyses addressing potential events involving the tritiated heavy-water storage system and the storage of irradiated fuel in the pool have not been repeated, as the heavy water has been removed from the systems and storage tanks and transferred off-site, and all the irradiated fuel has been transferred to dry storage.
65. Hydro-Québec stated that it will review its safety report for the Gentilly-2 Facilities every 5 years, as set out in REGDOC-3.1.1.
66. In section 3.4 of CMD 26-H101, CNSC staff found that Hydro-Québec's documentation relating to the safety analysis SCA meets regulatory requirements. CNSC staff explained that Hydro-Québec's safety analysis demonstrates that the changes made to the Gentilly-2 Facilities since 2014 have not increased the risk and that the current safety report adequately covers the risks that would be present up to the achievement of a dry storage state. CNSC staff noted that Hydro-Québec's approach complied with the regulatory requirements of REGDOC-2.4.1.
67. CNSC staff note that Hydro-Québec has committed to ensuring that its next safety report, to be submitted by December 2026, is fully compliant with the requirements set out in REGDOC-2.4.4, published in October 2022. Based on their assessment of the application, supporting documentation and Hydro-Québec's past performance, CNSC staff note that Hydro-Québec continues to implement and maintain a safety analysis program at the Gentilly-2 Facilities in accordance with regulatory requirements.
68. The Commission concludes that Hydro-Québec has an appropriate safety analysis program to carry on the licensed activities associated with the operation of its nuclear

²³ CNSC. REGDOC-2.4.1, *Deterministic Safety Analysis*, May 2014.

²⁴ CNSC. REGDOC-2.4.4, *Safety Analysis for Class IB Nuclear Facilities*, October 2022.

facilities under the proposed licence. The Commission's conclusion is based primarily on the following factors:

- Hydro-Québec's safety analysis for its nuclear facilities is appropriate and includes measures for protecting workers, the public and the environment against internal and external hazards
- Hydro-Québec meets the requirements of REGDOC-2.4.1
- Hydro-Québec has committed to complying with the requirements set out in REGDOC-2.4.4

69. The Commission notes Hydro-Québec's commitment to implementing REGDOC-2.4.4 and expects CNSC staff to inform the Commission should any issues arise.

3.4.5 *Physical design*

70. Hydro-Québec has an appropriate physical design program in place that enables it to carry on the activities covered by the proposed licence renewal.
71. The physical design SCA comprises the activities involved in designing structures, systems and components (SSCs) that maintain and comply with a facility's design basis. The design basis is the range of conditions, according to established criteria, that the facility must withstand without exceeding authorized limits for the planned operation of safety systems. Under condition 5.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain an engineering design program.
72. Paragraph 3(1)(d) of the GNSCR requires that a licence application contain a description of any nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence.
73. Paragraphs 3(a) and 3(b) of the *Class I Nuclear Facilities Regulations* indicate that an application for a licence in respect of a Class I nuclear facility must contain a description of the site of the activity to be licensed, as well as plans showing the location, perimeter, areas, structures and systems of the nuclear facility.
74. In section 2.5 of its application, Hydro-Québec provided information on its physical design program, including current projects and those it intends to carry out during the next licence period. Hydro-Québec states that, for systems still in operation, it maintains a procedure in accordance with clause 7.5 of CSA N286:12.
75. In section 3.5 of CMD 26-H101, CNSC staff stated that Hydro-Québec had implemented and maintained an effective physical design program in accordance with regulatory requirements. CNSC staff considered that the modifications made by Hydro-Québec to safety-related structures were compliant with CSA N291,

Requirements for Nuclear Safety-Related Structures,²⁵ and CSA N293, *Fire Protection for Nuclear Power Plants*,²⁶ as well as the [National Building Code of Canada](#).²⁷

76. CSNC staff reported that Hydro-Québec subcontracts all pressure boundary work subject to CSA N285.0, *General Requirements for Pressure-Retaining Systems and Components in CANDU Nuclear Power Plants/Material Standards for Reactor Components for CANDU Nuclear Power Plants*,²⁸ and CSA B51, *Boiler, Pressure Vessel, and Pressure Piping Code*,²⁹ to external specialized firms that hold the required certificates issued by the authorized inspection agency.
77. The Commission concludes that Hydro-Québec continues to implement and maintain an effective physical design program for its nuclear facilities, and that the design is adequate for the licence period in question. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec has a physical design program that meets regulatory requirements
 - The changes made by Hydro-Québec to safety-related structures are compliant with CSA N291 and CSA N293
 - Pressure boundary work is subcontracted to external specialized firms that hold the required certificates issued by the authorized inspection agency

3.4.6 *Fitness for service*

78. Hydro-Québec has an appropriate fitness for service program in place that enables it to carry on the activities covered by the proposed licence renewal.
79. The fitness for service SCA includes the activities that ensure that the SSCs of Hydro-Québec's nuclear facilities continue to perform their functions effectively. Under condition 6.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain fitness for service programs.
80. [REGDOC-2.6.3, Aging Management](#),³⁰ sets out CNSC requirements and guidance for managing aging of SSCs of a power reactor facility. Some aspects of CSA N393-13, *Fire Protection for Facilities that Process, Handle, or Store Nuclear Substances*,³¹ also apply to this SCA.

²⁵ CSA Group. N291, *Requirements for Nuclear Safety-Related Structures*, 2019.

²⁶ CSA Group. N293, *Fire Protection for Nuclear Power Plants*, 2012.

²⁷ National Building Code of Canada 2020, March 2022.

²⁸ CSA Group. N285.0, *General Requirements for Pressure-Retaining Systems and Components in CANDU Nuclear Power Plants/Material Standards for Reactor Components for CANDU Nuclear Power Plants*, 2023.

²⁹ CSA Group. B51, *Boiler, Pressure Vessel, and Pressure Piping Code*, 2009.

³⁰ CNSC. REGDOC-2.6.3, *Aging Management*, March 2014.

³¹ CSA Group. N393-13, *Fire Protection for Facilities that Process, Handle, or Store Nuclear Substances*, 2013 (R2018). This standard provides the minimum fire protection requirements for the design, construction, commissioning, operation, and decommissioning of facilities which process, handle, or store nuclear substances and other hazardous substances that directly relate to the nuclear substances being regulated.

81. In section 2.6 of its application, Hydro-Québec provided information on its activities and its fitness for service program, including aging management and aging management practices. It stated that the effectiveness of the SSCs in fulfilling their regulatory function had been ensured in accordance with regulatory requirements through the following measures:
- procurement in accordance with design requirements
 - operating methods, including chemistry control, established in accordance with design requirements, reviewed and approved
 - training for personnel and workers
 - documented tests and surveillance rounds, as well as a parameter monitoring system to track the condition of the facilities
 - inspections and maintenance scheduled in accordance with the original design requirements or as updated based on study results, following design modifications
 - manufacturer recommendations
 - industry operating experience
82. In section 3.6 of CMD 26-H101, CNSC staff noted that Hydro-Québec had maintained an effective fitness for service program in accordance with regulatory requirements. CNSC staff confirmed that Hydro-Québec's performance with regard to chemistry control, maintenance and aging management was acceptable during the licence period and continues to meet regulatory requirements. CNSC staff carried out an inspection in March 2025 focusing on civil engineering structures, in accordance with REGDOC-2.6.3, and confirmed that Hydro-Québec had effectively implemented the activities of its aging management program. CNSC staff noted that Hydro-Québec has committed to implementing CSA N291:19 (R2024) by December 31, 2026.
83. The Commission considers that Hydro-Québec has appropriate programs in place to ensure that the equipment associated with its nuclear facilities will retain its fitness for service throughout the proposed licence period. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec has a fitness for service program that includes adequate processes for chemistry control, maintenance and aging management that meet regulatory requirements
 - Hydro-Québec has maintained an aging management program that meets regulatory requirements, including those set out in REGDOC-2.6.3
 - Hydro-Québec has committed to implementing CSA N291:19 (R2024) by December 31, 2026
84. The Commission notes Hydro-Québec's commitment to implementing CSA N291:19 and expects CNSC staff to inform the Commission should any issues arise.

3.4.7 Radiation protection

85. Hydro-Québec has an appropriate radiation protection program in place that enables it to carry on the activities covered by the proposed licence renewal.
86. The radiation protection SCA covers the implementation of a radiation protection program in accordance with the [Radiation Protection Regulations](#).³² The program must ensure that contamination levels and radiation doses received by individuals are monitored, controlled and maintained as low as reasonably achievable (ALARA), taking into account social and economic factors. Under condition 7.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a radiation protection program.
87. Section 4 of the *Radiation Protection Regulations* requires that every licensee implement a radiation protection program. As part of that program, licensees must keep the effective dose and equivalent dose 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.
88. [REGDOC-2.7.1, Radiation Protection](#),³³ provides guidance on radiation protection programs, the principles of worker dose control and the principles of radiological hazard control to ensure the protection of workers and the public. [REGDOC-2.7.2, Dosimetry, Volume I: Ascertaining Occupational Dose](#),³⁴ sets out guidance for ascertaining occupational dose. It also provides guidance for making changes to dose-related information filed with Health Canada's National Dose Registry.
89. In section 2.7 of its application, Hydro-Québec provided information on its radiation protection program, including worker dose control and the application of the ALARA principle. Hydro-Québec set out the maximum annual individual doses and collective effective doses for its workers for the current licence period. Hydro-Québec stated that doses remain below the regulatory limit of 50 millisieverts (mSv) per year and that activities relating to the disposal of intermediate-level radioactive waste in storage pools were the main factor behind the increase in doses in 2024. Hydro-Québec reported that it had revised its radiation protection program in 2025 to incorporate the requirements of REGDOC-2.7.1.
90. Hydro-Québec stated that it has continued to hold an annual meeting of the ALARA committee to monitor dose reduction efforts, review the performance indicators of the radiation protection program and analyze trends in radiological events in order to propose corrective actions. Hydro-Québec also reported that it has maintained the certification of a health physicist in accordance with its guidelines.

³² SOR/2000-203.

³³ CNSC. REGDOC-2.7.1, *Radiation Protection*, July 2021.

³⁴ CNSC. REGDOC-2.7.2, *Dosimetry, Volume I: Ascertaining Occupational Dose*, July 2021.

91. Hydro-Québec stated that it had surrendered its dosimetry licence in 2022, transferring these responsibilities to Health Canada's National Dosimetry Services. Hydro-Québec indicated that it continues to conduct its annual management review of dosimetry to ensure that the worker dose management program is effective and well managed.
92. In section 3.7 of CMD 26-H101, CNSC staff noted that Hydro-Québec has implemented and maintained an effective radiation protection program, in accordance with the *Radiation Protection Regulations*. CNSC staff added that Hydro-Québec has a documented ALARA program that sets out the strategies implemented at Gentilly-2 to control doses to individuals in accordance with the relevant principle.
93. During the current licence period, CNSC staff carried out several compliance inspections relating to the radiation protection SCA and identified instances of non-compliance of low safety significance. One of the instances of non-compliance related to the wearing of dosimetry instruments under work garments. CNSC staff noted that Hydro-Québec had taken appropriate corrective actions to address these issues and that they are awaiting Hydro-Québec's response regarding the instances of non-compliance from 2025.
94. CNSC staff reported that the doses received by nuclear energy workers (NEWs) at the Gentilly-2 Facilities remained below the regulatory dose limits³⁵ during the current licence period. They specified that the maximum effective dose for a Hydro-Québec NEW during the current licence period was 4.66 millisieverts per year (mSv/year). CNSC staff noted that Hydro-Québec had effectively applied the ALARA principle during the current licence period. They added that Hydro-Québec had consistently kept workers' doses below its action levels and below regulatory limits.
95. In their respective submissions, the Regroupement des organismes environnementaux en énergie (ROEE), [CMD 26-H101.3](#) (French only), and the Canadian Coalition for Nuclear Responsibility, [CMD 26-H101.4](#), called for Hydro-Québec to carry out a thorough radiological characterization of the site or a thorough characterization of the radioactive inventory of each major reactor component. The Commission is of the view that radiological hazards at the Gentilly-2 Facilities are effectively controlled through the establishment of radiological zoning based on predetermined contamination concentrations and dose rates.
96. The Commission concludes that Hydro-Québec has implemented and maintained a radiation protection program to protect the environment and the health and safety of persons from radiation hazards associated with the Gentilly-2 Facilities. The Commission's conclusion is based primarily on the following factors:
 - Hydro-Québec has implemented a radiation protection program that meets the requirements of the *Radiation Protection Regulations*
 - Doses to workers at the Gentilly-2 Facilities remained below regulatory limits throughout the current licence period

³⁵ The regulatory dose limits for nuclear energy workers are set at 50 mSv per one-year dosimetry period and 100 mSv per five-year dosimetry period. The regulatory dose limit for members of the public is set at 1 mSv per calendar year.

- Hydro-Québec has implemented satisfactory corrective actions to address findings from inspections conducted during the current licence period
- Hydro-Québec has revised its radiation protection program to incorporate REGDOC-2.7.1 requirements

3.4.8 Conventional health and safety

97. Hydro-Québec has an appropriate conventional health and safety program in place that enables it to carry on the activities covered by the proposed licence renewal.
98. The conventional health and safety SCA covers the management of workplace safety hazards to minimize the risks to the health, safety and security of workers posed by conventional (non-radiological) hazards. This program includes compliance with applicable labour codes. Under condition 8.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a workplace health and safety program.
99. The NSCA stipulates that the Commission must ensure that an applicant will make adequate provision for the protection of the health of persons. Paragraph 3(f) of the *Class I Nuclear Facilities Regulations* stipulates that an application for a licence in respect of a Class I nuclear facility must include a description of the proposed worker health and safety policies and procedures. [REGDOC-2.8.1, Conventional Health and Safety](#),³⁶ sets out information regarding conventional health and safety and the implementation and maintenance of a conventional health and safety program. In addition, Hydro-Québec's activities must comply with the [Canada Labour Code](#)³⁷ and the associated [Canada Occupational Health and Safety Regulations](#).³⁸
100. In section 2.8 of CMD 26-H101.1, Hydro-Québec provided information on the implementation of its conventional health and safety program, including details on frequency and severity rates. Hydro-Québec noted that 2 lost-time incidents occurred during the current licence period. The incidents involved a finger being crushed during the dismantling of a sliding door and a fall from a ladder. Hydro-Québec stated that it had completed all actions arising from these incidents.
101. Hydro-Québec stated that it has maintained a local health and safety committee comprising members from various trades and from management. Hydro-Québec added that health and safety meetings with all employees are held on a monthly or quarterly basis, depending on the nature of the employee's work.
102. In section 3.8 of CMD 26-H101, CNSC staff confirmed that Hydro-Québec has maintained a conventional health and safety program that meets the regulatory requirements of Part II of the *Canada Labour Code* and the *Canada Occupational Health and Safety Regulations*. They indicated that they had carried out 2 inspections relating to this SCA during the current licence period and had not identified any

³⁶ CNSC. REGDOC-2.8.1, *Conventional Health and Safety*, July 2019.

³⁷ R.S.C., 1985, c. L-2.

³⁸ SOR/86-304.

instances of non-compliance. With regard to health and safety awareness, CNSC staff expressed satisfaction with Hydro-Québec's efforts to raise awareness of health and safety issues and added that Hydro-Québec actively promotes conventional health and safety through the provision of information, training, instructions and supervision.

103. CNSC staff noted that a non-compliance of low safety significance was identified with respect to this SCA during a general inspection carried out in July 2025. CNSC staff indicated that Hydro-Québec will be required to provide a response to the finding arising from the inspection, after which CNSC staff will review the proposed corrective action.
104. The Commission concludes that Hydro-Québec has taken adequate measures for the protection of the health and safety of persons with respect to conventional hazards arising from the operation of its nuclear facilities and will continue to do so during the proposed licence period. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec's conventional health and safety program complies with regulatory requirements, including those set out in Part II of the *Canada Labour Code* and the *Canada Occupational Health and Safety Regulations*
 - Hydro-Québec actively promotes conventional health and safety through the provision of information, training, instructions and supervision
 - Hydro-Québec had only one instance of non-compliance of low safety significance during the current licence period, and CNSC staff will ensure that the proposed corrective action is appropriate

3.4.9 *Environmental protection*

105. Hydro-Québec has an appropriate environmental protection program in place that enables it to carry on the activities covered by the proposed licence renewal.
106. 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. These programs include effluent and emission control, environmental monitoring, and estimated doses to the public. Under condition 9.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain an environmental protection program, including a set of action levels.
107. Under the NSCA, licensees are required to make adequate provision for the protection of the environment. Pursuant to paragraphs 12(1)(c) and (f) of the GNSCR, every licensee must take all reasonable precautions to protect the environment and the health and safety of persons, and to control the release of radioactive nuclear substances or hazardous substances within the site of the licensed activity and into the environment as a result of the licensed activity. Under subsection 1(3) of the *Radiation Protection Regulations*, the dose limit for the public is set at 1 mSv per calendar year.

108. [REGDOC-2.9.1, Environmental Protection: Environmental Principles, Assessments and Protection Measures, Version 1.2](#),³⁹ describes the CNSC's principles for environmental protection, the scope of an environmental review and the roles and responsibilities associated with an environmental review, and the CNSC's requirements and guidance for developing environmental protection measures, including an environmental risk assessment (ERA) where required. CSA N288.6, *Environmental Risk Assessments at Nuclear Facilities and Uranium Mines and Mills*,⁴⁰ sets out the requirements for carrying out and maintaining an ERA at nuclear facilities.
109. In section 2.9 of its application, Hydro-Québec provided information on its environmental protection program, including the control of effluents and emissions and public exposure. It stated that its environmental protection program complies with REGDOC-2.9.1 as well as with the general principles of ISO 14001:2015, *Environmental Management Systems — Requirements with Guidance for Use*.⁴¹
110. Hydro-Québec stated that it had carried out an ERA following the commencement of the storage with surveillance phase of decommissioning. Hydro-Québec added that, following that ERA, it had reviewed the environmental radiological monitoring plan in order to adapt the monitoring methods to the anticipated environmental risks.
111. Hydro-Québec reported that it now informs the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs and CNSC staff of results and developments in environmental monitoring methods through the submission of quarterly and annual environmental monitoring reports.
112. Hydro-Québec stated that no action level or derived release limit related to effluent monitoring had been reached during the current licence period. Hydro-Québec also reported that the annual dose to the public had stabilized at 1 µSv, well below the regulatory limit of 1 mSv.
113. Hydro-Québec indicated that the levels of radioactivity in liquid and gaseous releases have fallen dramatically since the fuel was fully transferred to dry storage modules. Hydro-Québec also pointed out that all data relating to liquid and gaseous radioactive effluents are published in the annual environmental monitoring reports for the Gentilly-2 Facilities, available on the [Hydro-Québec website](#). Hydro-Québec confirmed that it will comply with the new [REGDOC-2.9.2, Controlling Releases to the Environment](#).⁴² The Commission notes Hydro-Québec's intention to implement REGDOC-2.9.2 and expects CNSC staff to inform the Commission should any issues arise.
114. In section 3.9 of CMD 26-H101, CNSC staff reported that Hydro-Québec has an environmental protection program that protects the environment and human health in accordance with regulatory requirements. During the current licence period, CNSC staff verified Hydro-Québec's environmental protection performance through compliance inspections and desktop reviews. During the licence period, CNSC staff

³⁹ CNSC. REGDOC-2.9.1, *Environmental Protection: Environmental Principles, Assessments and Protection Measures*, Version 1.2, September 2020.

⁴⁰ CSA Group. N288.6, *Environmental Risk Assessments at Nuclear Facilities and Uranium Mines and Mills*, 2012.

⁴¹ ISO 14001:2015, *Environmental Management Systems — Requirements with Guidance for Use*, 2015.

⁴² CNSC. REGDOC-2.9.2, *Controlling Releases to the Environment*, March 2024.

carried out 3 compliance inspections focusing on the compliance criteria for the environmental protection SCA. CNSC staff did not identify any instances of non-compliance with this SCA.

115. With respect to the ERA submitted by Hydro-Québec in May 2022, CNSC staff found that the ERA complied with the requirements set out in CSA N288.6-12 and REGDOC-2.9.1. CNSC staff indicated that, according to the conclusions of the ERA, the risks to human health and the environment resulting from Hydro-Québec's activities are negligible.
116. CNSC staff reported that, in 2017, Hydro-Québec revised the derived release limits to better reflect the context of the decommissioning of the Gentilly-2 Facilities. CNSC staff reviewed and accepted the derived release limits, which have been in effect since 2018. CNSC staff reported that no releases of radioactive substances exceeded the derived release limits during the current licence period.
117. CSNC staff reported that liquid effluent monitoring at the Gentilly-2 Facilities focused on surface water, wastewater, stormwater drainage and groundwater. CNSC staff stated that the results of the analyses showed that, overall, the physical and chemical parameters met [Quebec's surface water quality criteria](#) (French only) for the protection of aquatic life. CNSC staff added that the results of the analysis of the physical and chemical parameters of groundwater around the radioactive waste storage facilities also met the applicable criteria. CNSC staff noted that the results of environmental monitoring at the Gentilly-2 Facilities demonstrate that the environmental protection program in place complies with REGDOC-2.9.1, Version 1.2.
118. CNSC staff noted that, as part of the CNSC's [Independent Environmental Monitoring Program](#) (IEMP), an analysis had been conducted of samples collected from areas accessible to the public near the Gentilly-2 Facilities. CNSC staff carried out 5 IEMP campaigns near the Gentilly-2 Facilities, in 2015, 2016, 2018, 2023 and 2024. CNSC staff noted that the results indicated that concentrations of radioactive and hazardous substances around the Gentilly-2 Facilities were well below guideline levels. Staff added that, according to the results, Hydro-Québec's environmental protection program for the Gentilly-2 Facilities is effective, and the environment and the public near the facilities are protected.⁴³
119. The submissions from the Canadian Coalition for Nuclear Responsibility, [CMD 26-H101.4](#), and from J. S. Daigle, [CMD 26-H101.6](#), expressed their concerns regarding tritium and carbon-14 emissions at the Gentilly-2 plant. The Canadian Coalition for Nuclear Responsibility requested that Hydro-Québec bring off-site emissions of these substances to zero, and J. S. Daigle recommended that tritium monitoring be expanded beyond the immediate site boundary. In CMD 26-H101, CNSC staff pointed out that radionuclide concentrations in the environment and emissions were well below regulatory limits. CNSC staff explained that radiological monitoring of environmental media around the Gentilly-2 Facilities focuses in particular on:
 - air monitoring (atmospheric surveillance)

⁴³ [IEMP results](#) for Hydro-Québec are available on the CNSC website.

- water monitoring (precipitation, infiltration waters, groundwater)
 - soil and sediment monitoring (arable land, dynamic sediments)
 - monitoring of fauna and flora (forage plants, aquatic plants, mollusks, fish)
120. The Commission concludes that Hydro-Québec ensures the protection of the environment and of the health, safety and security of persons and will continue to do so throughout the proposed licence period. The Commission also considers that the measures implemented at the Gentilly-2 Facilities ensure the protection of the environment under the NSCA. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec has maintained an environmental protection program that meets regulatory requirements, including those in REGDOC-2.9.1
 - Releases to the environment from the Gentilly-2 Facilities during the current licence period were well below regulatory limits
 - Hydro-Québec's ERA meets the requirements of REGDOC-2.9.1 and CSA N288.6-12
 - The dose to the public during the current licence period was well below the regulatory limit
 - Hydro-Québec will comply with the new REGDOC-2.9.2

3.4.10 Emergency management and fire protection

121. Hydro-Québec has an appropriate emergency management and fire protection program in place to allow for the conduct of the activities covered by the proposed licence renewal.
122. The emergency management and fire protection SCA covers all of the preparedness and response measures implemented by Hydro-Québec in case of an emergency or non-routine conditions at the Gentilly-2 Facilities. These measures include nuclear emergency management, conventional emergency response, and fire protection and response. Under condition 10.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain an emergency preparedness program.
123. Subsection 24(4) of the NSCA requires the applicant, in carrying on the proposed licensed activity, to 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.
124. 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 security. Paragraph 12(1)(f) requires every licensee to 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 as a result of the licensed activity.

125. [REGDOC-2.10.1, Nuclear Emergency Preparedness and Response, Version 2](#),⁴⁴ sets out the CNSC's emergency preparedness requirements and guidance, and applies to Class I nuclear facility licensees and licence applicants, including Hydro-Québec.
126. In section 3.10 of its application, Hydro-Québec provided information on its emergency management and fire protection procedures. It stated that its emergency response plan evolves according to the decommissioning activities being carried out and the residual risk, and that the emergency procedures were revised in 2025 to reflect the current organizational structure. Hydro-Québec presented a list of the exercises carried out during the last licence period.
127. With respect to fire protection, Hydro-Québec stated that it withdrew its industrial fire brigade from the site in 2017. Hydro-Québec noted that fire protection services, including personnel and equipment for emergency response, are now under the jurisdiction of the Bécancour fire department. Hydro-Québec also noted that the agreement with Bécancour includes an annual joint exercise, 2 annual familiarization visits and radiation protection training for officers likely to respond at the Gentilly-2 Facilities. Hydro-Québec stated that it carries out annual inspections and audits every 3 years, as required under CSA N293-12, *Fire Protection for Nuclear Power Plants*.⁴⁵
128. In section 3.10 of CMD 26-H101, CNSC staff state that Hydro-Québec maintains an emergency management and fire protection program in accordance with its current licence and applicable codes and standards, including the codes and standards cited in REGDOC-2.10.1. CNSC staff noted that Hydro-Québec is compliant with the requirements of CSA N293-12. CNSC staff reported that Hydro-Québec has committed to complying with the updated version of CSA N 293:23, *Fire Protection for Nuclear Power Plants*,⁴⁶ by December 2027.
129. CNSC staff provided information on fire drills conducted in 2019, 2020, 2021 and 2025. Staff reported that no significant safety issues were identified during these inspections.
130. In his submission, CMD 26-H101.6, J. S. Daigle recommended that Hydro-Québec's emergency response plans be updated to reflect the current radiological inventory at the Gentilly-2 Facilities and the nearby Gentilly-1 waste management facility. CNSC staff noted that Hydro-Québec had implemented an emergency preparedness and response plan that aligns with the risks and hazards present in the licensed facilities.
131. In CMD 26-H101-Q, the Commission requested information on the update to the fire hazard assessment. CNSC staff informed the Commission that Hydro-Québec had submitted its current fire hazard assessment in June 2021. Accordingly, the updated version must be submitted for review by the CNSC by June 2026.

⁴⁴ CNSC. REGDOC-2.10.1, *Nuclear Emergency Preparedness and Response*, Version 2, February 2016.

⁴⁵ CSA Group. N293-12, *Fire Protection for Nuclear Power Plants*, 2012.

⁴⁶ CSA Group. N293-23, *Fire Protection for Nuclear Power Plants*, 2023.

132. The Commission concludes that Hydro-Québec's nuclear and conventional emergency management program and fire protection measures are adequate to protect the environment and the health and safety of persons. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec's emergency management and fire protection programs meet regulatory requirements, including those set out in REGDOC-2.10.1
 - Hydro-Québec carried out fire drills, the results of which demonstrated an acceptable capacity to respond in case of emergency
 - Hydro-Québec has committed to complying with the updated version of CSA N293:23 by December 2027
133. The Commission notes that Hydro-Québec will submit an updated version of its fire hazard assessment in June 2026.

3.4.11 Waste management

134. Hydro-Québec has an appropriate waste management program in place that enables it to carry on the activities covered by the proposed licence renewal.
135. The waste management SCA covers all of the waste-related programs that form part of the facility's operations up until the waste is removed from the authorized site to be stored, processed or disposed of at another authorized location. This includes waste minimization, segregation, characterization, and storage programs. Under condition 11.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a waste management program. Furthermore, under condition 11.2 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement the decommissioning planning and preparation plan for the nuclear facility and the waste facility.
136. Paragraph 3(1)(j) of the GNSCR states 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 waste 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. Paragraph 3(k) of the *Class I Nuclear Facilities Regulations* also requires that the licence application contain the proposed plan for the decommissioning of the nuclear facility or of the site.
137. [REGDOC-2.11.1, Waste Management, Volume I: Management of Radioactive Waste](#),⁴⁷ sets out CNSC requirements and guidance for managing radioactive waste. [REGDOC-2.11.2, Decommissioning](#),⁴⁸ sets out requirements and guidance regarding the planning and preparation for, as well as the execution and completion of, decommissioning.

⁴⁷ CNSC. REGDOC-2.11.1, *Waste Management, Volume I: Management of Radioactive Waste*, January 2021.

⁴⁸ CNSC. REGDOC-2.11.2, *Decommissioning*, January 2021.

138. In section 2.11 of its application, Hydro-Québec provided information regarding its waste management program, including volumes of waste stored. Hydro-Québec stated that it submits reports to the CNSC detailing transfers of waste, hazardous substances and nuclear substances.
139. Hydro-Québec stated that it plans to demolish several buildings during the next licence period. Hydro-Québec specified that the buildings targeted for demolition contain little or no radiological contamination. Hydro-Québec does not expect that these demolitions will generate a significant amount of radioactive waste.
140. In section 3.11 of CMD 26-H101, CNSC staff noted that Hydro-Québec maintains a waste management program in accordance with REGDOC-2.11.1 and CSA N292.0:19, *General Principles for the Management of Radioactive Waste and Irradiated Fuel*.⁴⁹ CNSC staff reported that they had conducted 6 inspections at the Gentilly-2 Facilities that included verification criteria associated with the waste management SCA. One non-compliance of low safety significance was identified and was dealt with to the satisfaction of CNSC staff.
141. With respect to decommissioning, CNSC staff noted that Hydro-Québec is planning for a storage with surveillance phase starting in 2026. CNSC staff specified that the beginning of the dismantling phase would be coordinated with the Nuclear Waste Management Organization (NWMO) schedule for transferring the used fuel to the future deep geological repository between 2050 and 2054. CNSC staff stated that the end-state objectives of decommissioning are to completely and permanently remove all buildings and structures from the Gentilly-2 site, remove all radioactive and hazardous waste and materials, and bring the site to a condition acceptable for release from CNSC regulatory control. CNSC staff estimated that the 2024 version of the detailed decommissioning plan (DDP) for the Gentilly-2 Facilities meets the requirements set out in REGDOC-2.11.2 and in CSA N294-19, *Decommissioning of Facilities Containing Nuclear Substances*.⁵⁰ The DDP and related cost estimates are discussed further in section 3.6.2 of this Record of Decision.
142. In CMD 26-H101-Q, the Commission requested further information on the transport of irradiated fuel bundles. Hydro-Québec acknowledged that it would be responsible for loading the irradiated nuclear fuel baskets into the transport packages specifically designed and certified for that purpose, and that the NWMO would be responsible for transport and for activities at the permanent site. Hydro-Québec added that the NWMO had issued a [Preliminary Transportation Plan in December 2021](#), which summarizes its transportation program as well as safety and security considerations.

⁴⁹ CSA Group. N292.0:19, *General Principles for the Management of Radioactive Waste and Irradiated Fuel*, 2019.

⁵⁰ CSA Group. N294-19, *Decommissioning of Facilities Containing Nuclear Substances*, 2019.

143. With respect to the DDP, the Commission requested, in CMD 26-H101-Q, information on the draining of the storage and auxiliary pools as well as plans for the drained water. Hydro-Québec stated that draining is carried out gradually and exclusively through the liquid effluent management system, which directs effluents to an underwater depression in the south channel of the St. Lawrence River. Hydro-Québec added that, after obtaining approval from the CNSC in December 2025, it had begun draining the pools, which would be finished in summer 2026.
144. The Commission considers that Hydro-Québec has implemented and is maintaining a waste management program that enables the safe management of waste at the Gentilly-2 nuclear facilities. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec has implemented a waste management program that meets regulatory requirements, including those set out in REGDOC-2.11.1 and CSA N292.0-19
 - Hydro-Québec has a detailed decommissioning plan for the Gentilly-2 nuclear facilities, which it has implemented and which meets the regulatory requirements set out in REGDOC-2.11.2 and CSA N294-19

3.4.12 Security

145. Hydro-Québec has an appropriate security program in place that enables it to carry on the activities covered by the proposed licence renewal.
146. The security SCA covers the implementation of a program to prevent the loss, unauthorized removal and sabotage of nuclear substances, nuclear materials, prescribed equipment or prescribed information. Hydro-Québec's security program must comply with the applicable provisions of the GNSCR and Part 2 of the [Nuclear Security Regulations](#)⁵¹ (NSR). Under condition 12.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a nuclear security program.
147. 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 of sabotage or attempted sabotage anywhere at the site of the licensed activity. Paragraph 12(1)(j) requires the licensee to instruct the workers on the physical security program at the site of the licensed activity and on their obligations under that program.

⁵¹ SOR/2000-209.

148. In addition, sections 21 to 23 of the GNSCR set out requirements for all licensees pertaining to the identification, storage, handling and transfer of information designated as “prescribed information.” [REGDOC-2.12.1, High-Security Sites: Volume II: Criteria for Nuclear Security Systems and Devices](#),⁵² sets out regulatory expectations and guidance for licensees with respect to the CNSC’s security expectations under the GNSCR.
149. In section 2.12 of its application, Hydro-Québec stated that it had been applying its defuelled core state security program since 2013, which contains information on the physical security of the facility and the protected area. Hydro-Québec indicated that it had reviewed its security program 3 times, in 2015, 2020 and 2025. Hydro-Québec stated that it would maintain all of the activities required to continue ensuring the security of the site and meet the various regulatory requirements, including pursuing compliance with REGDOC-2.12.1.
150. With respect to cyber security, Hydro-Québec stated that, in November 2025, it had developed and implemented a procedure for managing the cyber security of essential electronic assets with the purpose of ensuring the protection of those assets from cyberattacks. CNSC staff concluded that Hydro-Québec has in place a cyber security program that meets the requirements of CSA N290.7, *Cyber Security for Nuclear Facilities*.⁵³
151. In section 3.12 of CMD 26-H101, CNSC staff indicated that Hydro-Québec has maintained an effective security program that meets the regulatory requirements of the NSR. Staff noted that Hydro-Québec submits an updated threat and risk assessment (TRA) on an annual basis for CNSC staff to review. CNSC staff also noted that Hydro-Québec had submitted an updated TRA to take into account the proposed building demolitions and decommissioning activities and determined that these activities would have minimal impact on its security program.
152. CNSC staff noted that, on December 5, 2022, a CNSC inspector had issued an order to Hydro-Québec regarding the Gentilly-2 Facilities following a security inspection. CNSC staff noted that, as a result of the order, Hydro-Québec updated its memorandum of understanding with the Sûreté du Québec, conducted a desktop exercise with the Sûreté du Québec, and submitted a report of the exercise to CNSC staff to meet the conditions of the order.
153. CNSC staff noted that they had identified deficiencies in Hydro-Québec’s performance during a force-on-force exercise in collaboration with the Sûreté du Québec. CNSC staff noted that they had reviewed the corrective action plan provided by Hydro-Québec and that they would continue to closely monitor its implementation through desktop reviews and inspections.
154. The Commission is of the opinion that Hydro-Québec has adequate programs and measures in place to ensure the physical security of the Gentilly-2 Facilities for the proposed licence period. The Commission is further satisfied that Hydro-Québec’s

⁵² CNSC. REGDOC-2.12.1, *High-Security Sites: Volume II: Criteria for Nuclear Security Systems and Devices*, April 2018.

⁵³ CSA Group. N290.7, *Cyber Security for Nuclear Facilities*, 2021.

performance with respect to the security SCA has been acceptable and meets regulatory requirements. The Commission's conclusion is based primarily on the following factors:

- Hydro-Québec has implemented a security program that meets regulatory requirements, including those set out in Part 2 of the NSR
- Hydro-Québec has implemented a cyber security program that meets the requirements of CSA N290.7
- Hydro-Québec has implemented satisfactory corrective actions following the 2022 order

155. The Commission takes note of the downward trend in Hydro-Québec's performance for this SCA and expects CNSC staff to closely monitor the implementation of corrective actions.

3.4.13 Safeguards and non-proliferation

156. Hydro-Québec has an appropriate safeguards and non-proliferation program in place that enables it to carry on the activities covered by the proposed licence renewal.
157. 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 Nuclear Weapons](#) (NPT).⁵⁴ Pursuant to the NPT, Canada has entered into a [Comprehensive Safeguards Agreement](#)⁵⁵ and an [Additional Protocol](#)⁵⁶ (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. Under condition 13.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a safeguards program.
158. [REGDOC-2.13.1, Safeguards and Nuclear Material Accountancy](#),⁵⁷ sets out guidance and requirements for safeguards programs for applicants and licensees who possess nuclear material.
159. In section 2.13 of its application, Hydro-Québec stated that it has a safeguards and non-proliferation program that complies with the terms of the safeguards agreements. It provided information on its safeguards and non-proliferation activities, including providing access and assistance to the IAEA. Hydro-Québec reported that it had provided the IAEA with the necessary access and assistance to perform its activities during the current licence period.

⁵⁴ INFCIRC/140.

⁵⁵ INFCIRC/164.

⁵⁶ INFCIRC/164/Add.1.

⁵⁷ CNSC. REGDOC-2.13.1, *Safeguards and Nuclear Material Accountancy*, February 2018.

160. In section 3.13 of CMD 26-H101, CNSC staff stated that it was satisfied with Hydro-Québec's safeguards and non-proliferation program, which meets the requirements set out in REGDOC-2.13.1. CNSC staff noted that the IAEA had conducted 14 inspections and 7 physical-inventory verifications during the current licence period. CNSC staff noted that Hydro-Québec had provided the required access and assistance for all of the IAEA's inspections and that there were no findings of non-compliance.
161. The Commission concludes that Hydro-Québec has implemented and is maintaining a satisfactory safeguards program that provides for, and will continue to provide for, the implementation of measures that are necessary for maintaining national security and for implementing international agreements to which Canada has agreed. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec's safeguards and non-proliferation program meets regulatory requirements, including those set out in REGDOC-2.13.1
 - Hydro-Québec has provided the IAEA with the necessary access and assistance to perform its activities during the current licence period

3.4.14 Packaging and transport

162. Hydro-Québec has an appropriate packaging and transport program in place that enables it to carry on the activities covered by the proposed licence renewal.
163. The packaging and transport SCA covers the programs relating to the safe packaging and transport of nuclear substances and radiation devices to and from a licensed facility. Hydro-Québec must adhere to the [Packaging and Transport of Nuclear Substances Regulations, 2015](#)⁵⁸ (PTNSR 2015) and Transport Canada's [Transportation of Dangerous Goods Regulations](#)⁵⁹ (TDGR) for all shipments. These regulations apply to the packaging and transport of nuclear substances at the Gentilly-2 Facilities, including the design, production, use, inspection, maintenance and repair of packages, and the preparation, consigning, handling, loading, carriage and unloading of packages. Under condition 14.1 of decommissioning licence PRDL 10.00/2026, Hydro-Québec is required to implement and maintain a packaging and transport program.

⁵⁸ SOR/2015-145.

⁵⁹ SOR/2001-286.

164. In section 2.14 of its application, Hydro-Québec provided information on its packaging and transport program, and stated that the employees required to prepare and oversee the transport of radioactive materials had received the required certifications and training. It stated that its packaging and transport procedures comply with the PTNSR 2015 and the TDGR.
165. In section 3.14 of CMD 26-H101, CNSC staff confirmed that Hydro-Québec has a packaging and transport program in place to ensure that all shipments to and from the Gentilly-2 Facilities comply with the PTNSR 2015 and the TDGR. CNSC staff stated that they had carried out an inspection that included the verification of packaging and transport criteria, and confirmed that Hydro-Québec was in compliance with applicable packaging and transport requirements.
166. The Commission concludes that Hydro-Québec has an adequate program in place to meet regulatory requirements regarding packaging and transport. In reaching this conclusion, the Commission is satisfied that Hydro-Québec has implemented a packaging and transport program that meets regulatory requirements, including those set out in the PTNSR 2015 and the TDGR.

3.4.15 Conclusions on Hydro-Québec's performance and safety and control measures at its Gentilly-2 Facilities

167. Based on its review and analysis of all the information provided and described above, the Commission concludes that Hydro-Québec is qualified to carry on the licensed activities under the proposed renewed licence. The Commission finds that Hydro-Québec has adequate programs in place with respect to the 14 SCAs to ensure the protection of the environment and the health, safety and security of workers and the public over the proposed 20-year licence period. The Commission further concludes that Hydro-Québec has 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

168. The Commission finds that it has fulfilled its responsibility to uphold the honour of the Crown and its constitutional obligations with respect to Indigenous engagement.
169. The duty to consult stems from section 35 of the [Constitution Act, 1982](#)⁶⁰ 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 peoples. As an agent of the Crown, the Commission must uphold the honour of the Crown and ensure that the duty to consult and accommodate, if applicable, is discharged.
170. The duty to consult arises “when the Crown has knowledge, real or constructive, of the potential existence of the Aboriginal right or title and contemplates conduct that might

⁶⁰ *Constitution Act, 1982*, Schedule B to the *Canada Act 1982* (UK), 1982, c. 11.

adversely affect it”.⁶¹ Specifically, the duty to consult arises when the following 3 elements are met:⁶²

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

171. Licensing decisions of the Commission that may have new negative impacts on Indigenous interests can trigger the duty to consult. In those cases, the Commission must be satisfied that it has met the duty prior to making the relevant licensing decision. The duty to consult is not triggered by historical impacts and is not the vehicle to address historical grievances. Instead, it is designed to address potential adverse impacts flowing from a project under review.⁶³
172. The determination of what the duty to consult requires in a particular case can also be informed by the [United Nations Declaration on the Rights of Indigenous Peoples](#)⁶⁴ (UNDRIP), which has been adopted into Canadian law via the [United Nations Declaration on the Rights of Indigenous Peoples Act](#)⁶⁵ (UNDA). UNDRIP does not create new laws or statutory obligations; rather, it is an interpretive lens to be applied when assessing the scope and content of the duty to consult.⁶⁶
173. In meeting its obligations towards Indigenous Nations and communities, the Commission may rely on consultations undertaken by CNSC staff as well as opportunities for Indigenous Nations and communities 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 Hydro-Québec.⁶⁷

⁶¹*Haida Nation*, para. 35.

⁶²*Rio Tinto Alcan Inc. v. Carrier Sekani Tribal Council*, 2010 SCC 43, para. 31 [*Rio Tinto*].

⁶³*Rio Tinto*, para. 49; *Chippewas of the Thames First Nation v. Enbridge Pipelines Inc.*, 2017 SCC 41, para. 41.

⁶⁴United Nations, [Declaration on the Rights of Indigenous Peoples](#) (September 2007).

⁶⁵*United Nations Declaration on the Rights of Indigenous Peoples Act*, S.C. 2021, c. 14.

⁶⁶*Kebaowek First Nation v. Canadian Nuclear Laboratories*, 2025 FC 319, para. 183 [*Kebaowek First Nation*].

⁶⁷[Aboriginal Consultation and Accommodation - Updated Guidelines for Federal Officials to Fulfill the Duty to Consult - March 2011](#) and CNSC REGDOC-3.2.2, *Indigenous Engagement*, February 2022.

Indigenous consultation by CNSC staff

174. In section 4.1 of CMD 26-H101, CNSC staff provided the Commission with information about its consultation activities with the Indigenous Nations and communities that were identified as having a potential interest in Hydro-Québec's licence renewal application. CNSC staff noted that the CNSC's Indigenous engagement practices include sharing information, discussing topics of interest, seeking feedback and input on CNSC processes, and providing opportunities for participation in environmental monitoring. The CNSC also provides funding support, through its Participant Funding Program and the Indigenous and Stakeholder Capacity Fund, to enable Indigenous peoples to meaningfully participate in Commission proceedings and ongoing regulatory activities. CNSC staff identified the following Indigenous Nations and communities owing to the proximity of their communities, treaty areas, and/or traditional territories and homelands to the Gentilly-2 Facilities, or owing to previously expressed interest in being kept informed:
- Conseil de la Nation Wendat
 - Conseil des Abénakis Odanak (represented by W8banaki)
 - Conseil des Abénakis Wôlinak (represented by W8banaki)
 - Kebaowek First Nation
 - Passamaquoddy Recognition Group Inc.
175. CNSC staff submitted that they had informed the identified Indigenous Nations and communities of the availability of participant funding and encouraged them to participate in the regulatory review process so that they could advise the Commission directly of any of their concerns in relation to this licence renewal application. CNSC staff noted that they had not been made aware of any specific concerns from Indigenous Nations and communities regarding Hydro-Québec's application. CNSC staff stated that a notice regarding the project had been sent to all of the Indigenous Nations and communities concerned on August 22, 2025, and that CNSC staff had then contacted the interested Indigenous Nations and communities by telephone to discuss deadlines for interventions and hearing details, and to answer any questions regarding the licence renewal application.
176. CNSC staff submitted that the licensed activities under the licence renewal application were not expected to cause any new adverse impacts to potential or established Indigenous and/or treaty rights. CNSC staff stressed their commitment to ensuring ongoing, meaningful engagement and collaboration with Indigenous Nations and communities interested in the facilities and activities at Gentilly-2.

Indigenous engagement by Hydro-Québec

177. In section 4.1 of its application, Hydro-Québec provided information regarding its Indigenous engagement activities. Hydro-Québec stated that it had prepared a specific communications plan related to the preparation of its decommissioning licence renewal and in order to present the plan to accelerate the demolition of certain buildings.

178. Hydro-Québec provided information on its engagement efforts and stated that it had identified 2 communities as rights holders that may potentially be affected by the decommissioning activities:
- The W8banaki Nation, including the communities of Odanak and Wôlinak
 - The Wendat Nation community in Wendake
179. Hydro-Québec added that no major concerns were raised by the communities in meetings regarding the decommissioning of Gentilly-2.
180. In section 4.1 of CMD 26-H101, CNSC staff noted that they had verified that Hydro-Québec had informed and engaged with the relevant Indigenous Nations and communities about the application to renew the nuclear power reactor decommissioning licence, and stated that they were satisfied with the engagement efforts up to this point.

Submissions by Indigenous nations and communities

181. The Commission did not receive any submissions from Indigenous Nations and communities.

3.5.1 Conclusion on Indigenous consultation and engagement

182. The Commission concludes that this licence renewal application does not trigger the duty to consult with respect to the Indigenous Nations and communities listed above. Acceptance of the licence renewal application will not cause any **new** impacts on potential or established Aboriginal or treaty rights.⁶⁸
183. Hydro-Québec's application concerns a nuclear power reactor that was commissioned in 1983 and that was permanently shut down in 2012. The application does not propose any changes to the licensed activities currently authorized. In its application, Hydro-Québec states that it is compliant with regulatory requirements and that it will continue to apply its programs in order to ensure that the already authorized decommissioning activities can continue, while maintaining the same level of performance. Hydro-Québec also stated that the decommissioning activities at the Gentilly-2 Facilities will be the same for the next 20-year licence period. This period will make it possible to complete the project to demolish the buildings and structures containing little or no contamination that are no longer useful in the context of decommissioning. The project is therefore unlikely to have any new impacts on the environment.
184. Although ongoing effects related to the decommissioning of the facility and the operation of the waste management facility may be present, these are not new. Rather, they arise from past decisions and a longstanding situation, which does not trigger the

⁶⁸ *Rio Tinto*, paras. 45 and 49; *Fond du Lac Denesuline First Nation v. Canada (Attorney General)*, 2012 FCA 73.

duty to consult.⁶⁹ It should be noted that the long-term objectives of Hydro-Québec's work aim to improve the Gentilly-2 site: completely and permanently remove all buildings and structures, remove all radioactive and hazardous waste and materials, and restore the site to a condition where it can be released from the CNSC's regulatory control.

185. 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 Hydro-Québec, would have been sufficient to meet the obligations of the Crown at the lower end of the spectrum.
186. The Commission 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 in participating in the hearing process. The Commission is satisfied with the efforts made by CNSC staff to engage with the Indigenous Nations and communities likely to be interested in the decommissioning of the Gentilly-2 Facilities. The efforts made by CNSC staff in this regard are essential to the Commission's important work in fostering reconciliation and establishing relationships with Indigenous Nations and communities in Canada.
187. The Commission also recognizes Hydro-Québec's commitment to continue engagement with and the inclusion of Indigenous peoples in matters of mutual interest. The Commission notes Hydro-Québec's sustained efforts to develop an Indigenous engagement program in relation to its facilities.
188. Based on the engagement and consultation activities summarized above and the information on the record, the Commission considers that the honour of the Crown has been upheld in this case. The Commission expects CNSC staff to continue to build meaningful long-term relationships with Indigenous Nations and communities as part of the CNSC's reconciliation efforts.

3.6 Other matters of regulatory importance

Other matters of regulatory importance that apply in this matter include public engagement, financial guarantees, cost recovery and nuclear liability insurance. These subjects are relevant to the Commission's decision making but are not covered by the SCAs.

3.6.1 Public engagement

189. The establishment of a public information and disclosure program (PIDP) is a regulatory requirement for licence applicants and licensed operators of Class I nuclear

⁶⁹ *Kebaowek First Nation*, para. 209.

facilities. In section 3.7.2 of CMD 26-H101.1, Hydro-Québec described its public engagement activities. Hydro-Québec added that exchanges with the public raised questions regarding the buildings to be demolished, the timeline, financial opportunities, waste management, security, the future of the site, transportation of waste, jobs, and environmental monitoring.

190. In section 4.3 of CMD 26-H101, CNSC staff confirmed that Hydro-Québec is continuing to comply with the specifications of [REGDOC-3.2.1, Public Information and Disclosure](#).⁷⁰ Hydro-Québec has successfully maintained its PIDP, engaging with many interested parties both in person and virtually. CNSC staff stated that Hydro-Québec submits an annual compliance report summarizing developments and events occurring at its facilities. CNSC staff added that Hydro-Québec produces a yearly summary of its PIDP for review by the CNSC.
191. The Commission concludes that Hydro-Québec will continue to communicate to the public information about the health, safety and security of persons, about the environment and about other issues related to its facilities. The Commission's conclusion is based primarily on the following factors:
- Hydro-Québec's PIDP meets the requirements of REGDOC-3.2.1
 - Hydro-Québec met its public disclosure and reporting obligations throughout the current licence period

3.6.2 Decommissioning plans and financial guarantee

192. 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 throughout the service life of those facilities. In order to ensure that adequate resources are available for the safe and secure decommissioning of the Gentilly-2 Facilities, the Commission requires that an adequate financial guarantee to carry on the planned activities be implemented and maintained in a form acceptable to the Commission for the duration of the licence period.
193. In section 3.5 of its application, Hydro-Québec noted that its current financial guarantee is composed of 2 elements:
- an irrevocable commitment from the Government of Quebec in the amount of \$685M
 - a trust fund of \$193M as of December 31, 2024
194. Hydro-Québec stated that it had revised the amount of its financial guarantee following the update to the cost study associated with the DDP for the Gentilly-2 Facilities. Hydro-Québec stated that it had proposed increasing the irrevocable commitment from the Government of Quebec from \$685M to \$1,100M in order to cover the current estimated costs for the financial guarantee.

⁷⁰ CNSC. REGDOC-3.2.1, *Public Information and Disclosure*, May 2018.

195. In section 5.2 of CMD 26-H101, CNSC staff provided details regarding the calculation of Hydro-Québec's revised financial guarantee. CNSC staff confirmed that the cost estimate, the proposed financial guarantee for the decommissioning of the Gentilly-2 Facilities and the financial guarantee instrument meet the requirements of [REGDOC-3.3.1, Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities](#),⁷¹ which sets out requirements and guidance regarding the establishment and maintenance of funding for the decommissioning of facilities and the termination of licensed activities.
196. CNSC staff concluded that the DDP provides the basis for a credible cost estimate for the future decommissioning of the Gentilly-2 Facilities covered under the proposed financial guarantee, and that the proposed updated financial guarantee is adequate for the future decommissioning of the Gentilly-2 Facilities.
197. In her submission, [CMD 26-H101.2](#), O. A. Roszell recommended the implementation of an explicit review and adjustment protocol for the financial guarantee. The Commission notes that, according to REGDOC-3.3.1, applicants or licensees must ensure that the financial guarantee remains valid, in effect and sufficient to meet decommissioning needs according to the most up-to-date decommissioning plan. Therefore, licensees must revise their financial guarantee at a minimum every 5 years or earlier when requested by the Commission. Applicants or licensees may request a review of their financial guarantees by the CNSC at any time.
198. In CMD 26-H101-Q, the Commission requested explanations regarding the adequacy of Hydro-Québec's financial guarantee. Hydro-Québec informed the Commission that the draft decree to increase the guarantee to \$1,100M was obtained from the Quebec Ministère des Finances and sent to CNSC staff in June 2025. Hydro-Québec added that the costs were indexed according to the consumer price index and that they also included a contingency to cover unexpected costs for the duration of the licence period.
199. The Commission concludes that Hydro-Québec's revised DDP provides a credible cost estimate for the future decommissioning of its facilities, and that the financial guarantee instruments, which combine an irrevocable commitment from the Government of Quebec and a trust fund, are acceptable. The Commission accepts the Government of Quebec's revised irrevocable commitment of \$1,100M proposed by Hydro-Québec for its Gentilly-2 Facilities, accompanied by a trust fund of \$193M as of December 31, 2024.

3.6.3 *Cost recovery*

200. Paragraph 24(2)(c) of the NSCA requires that a licence application be accompanied by the prescribed fee, as set out by the [Canadian Nuclear Safety Commission Cost Recovery Fees Regulations](#)⁷² (CRFR) and based on the activities to be licensed.

⁷¹ CNSC. REGDOC-3.3.1, *Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities*, January 2021.

⁷² SOR/2003-212.

201. In section 5.1 of CMD 26-H101, CNSC staff confirmed that Hydro-Québec is in good standing with respect to CRFR requirements for the Gentilly-2 Facilities. Staff noted that, given Hydro-Québec's past performance, they had no concerns regarding the payment of future cost recovery fees.
202. Based on the information submitted by CNSC staff, the Commission is satisfied that Hydro-Québec has met the requirements of the NSCA for the purpose of this licence renewal.

3.6.4 Nuclear liability insurance

203. In section 5.3 of CMD 26-H101, CNSC staff noted that the Gentilly-2 Facilities fall under the class of "nuclear fuel waste management facility" under subsection 4(2) of the [Nuclear Liability and Compensation Regulations](#)⁷³ and that Hydro-Québec is required to maintain valid insurance for the liability amount set out in those Regulations, in accordance with the [Nuclear Liability and Compensation Act](#)⁷⁴ (NLCA). While this statutory requirement is not administered by the CNSC, but rather, by Natural Resources Canada, the nuclear regulator maintains awareness of NLCA compliance, where its licensees are designated nuclear installations.
204. CNSC staff noted that Hydro-Québec continues to maintain nuclear liability insurance in accordance with the NLCA.
205. The Commission concludes that Hydro-Québec continues to satisfy the requirements for the maintenance of nuclear liability insurance under the NLCA.

3.7 Licence length and conditions

206. The Commission assessed Hydro-Québec's application for the renewal of a nuclear power reactor decommissioning licence for a 20-year period. Hydro-Québec's current licence, PRDL 10.00/2026, is valid until June 30, 2026. Hydro-Québec has not proposed any changes to the licensed activities currently authorized. The activities planned during the proposed licence period are consistent with the decommissioning strategy for the facility.

3.7.1 Licence length

207. Hydro-Québec applied for the renewal of its licence for a 20-year period. In its application, Hydro-Québec stated that it is compliant with regulatory requirements and that it will continue to apply its programs in order to ensure that decommissioning activities continue, while maintaining the same level of performance. Hydro-Québec also stated that the decommissioning activities at the Gentilly-2 Facilities will be the same for the next 20-year licence period. Hydro-Québec added that this period will

⁷³ SOR/2016-88.

⁷⁴ S.C. 2015, c. 4, s. 120.

make it possible to complete the plan to demolish the buildings and structures containing little or no contamination that are no longer useful in the context of decommissioning.

208. CNSC staff recommended the renewal of Hydro-Québec's licence for a period of 20 years, until June 30, 2046. In Appendix C of CMD 26-H101, CNSC staff stated that they had assessed Hydro-Québec's application for a 20-year licence period and concluded that a 20-year licence period was reasonable. In Appendix C of CMD 26-H101, CNSC staff stated that Hydro-Québec meets the criteria for the following reasons:
- Hydro-Québec has well-established and effective programs in place to manage the hazards associated with the ongoing decommissioning work
 - Hazards associated with the licensed activities are well characterized and their impacts are well predicted and within the scope in the safety case
 - Hydro-Québec maintains a management system at the Gentilly-2 Facilities that complies with the requirements of CSA N286:12
 - The CNSC has effective compliance verification programs
 - No changes in the licensed activities were requested for Gentilly-2. The decommissioning activities at the Gentilly-2 Facilities will remain the same during the upcoming 20-year licence period
209. CNSC staff also recommended that Hydro-Québec submit a comprehensive update on its performance to the Commission at the midpoint of the licence period.
210. Several intervenors, including the ROÉÉ ([CMD 26-H101.3](#)), the Canadian Coalition for Nuclear Responsibility ([CMD 26-H101.4](#)), and Northwatch ([CMD 26-H101.5](#)), recommended a shorter licence period, of 5 years for the ROÉÉ and the Canadian Coalition for Nuclear Responsibility, and of 2 years for Northwatch. Northwatch recommended a 2-year period during which a comprehensive public review of Hydro-Québec's decommissioning plan would be carried out.
211. Considering the assessment and the above conclusions, the Commission concludes that a 20-year licence period, with a comprehensive performance update to the Commission at the midpoint of the licence period, with public participation, is appropriate.

3.7.2 Licence conditions

212. In Appendix C of CMD 26-H101, CNSC staff proposed a draft licence. CNSC staff explained that the draft licence had been updated based on a format that integrates the CNSC's standard licence conditions applicable to Hydro-Québec's nuclear power reactor decommissioning licence. CNSC staff added that regulatory documents, such as CNSC regulatory documents that are listed in the licence conditions, were moved to compliance verification criteria in the licence conditions handbook.

213. The Commission approves the licence conditions as recommended by CNSC staff in [CMD 26-H101](#). The Commission notes that the licence was updated to align with the CNSC standard licence conditions and to be consistent with recent licences issued by the CNSC.

3.7.3 *Delegation of authority*

214. In order to provide adequate regulatory oversight of changes that do not require a licence amendment or Commission approval, CNSC staff recommended that the Commission delegate authority for certain approvals or consent, as contemplated in licence conditions that contain the phrase “a person authorized by the Commission.” In section 5.4 of CMD 26-H101, CNSC staff recommended that the Commission delegate its authority for the purposes described in licence condition 15.1 (*“Le titulaire de permis doit, avant d’entreprendre les activités visées à l’alinéa IV(v), soumettre un plan de qualité, un plan de réalisation du projet, un plan de protection environnementale et un plan de vérification à l’approbation de la Commission ou au consentement d’une personne autorisée par la Commission”*) to the following members of CNSC staff:

- Director, Wastes and Decommissioning Division
- Director General, Directorate of Nuclear Cycle and Facilities Regulations
- Executive Vice-President and Chief Regulatory Operations Officer, Regulatory Operations Branch

215. The Commission delegates its authority for the purposes of licence condition 15.1 to the above CNSC staff as recommended. The Commission notes that the delegation of authority for the identified licence condition is for the purpose of the administration of that licence condition. The Commission is satisfied that this approach is reasonable.

3.7.4 *Conclusion on licence length and conditions*

216. The Commission concludes that a 20-year licence period, with a comprehensive performance update to the Commission at the midpoint of the licence period, with public participation, is appropriate. The Commission’s conclusion is based primarily on the following factors:

- The Commission agrees with the assessment by CNSC staff, based on the criteria set out in Appendix C to CMD 26-H101, of the application submitted by Hydro-Québec
- Hydro-Québec has successfully characterized and mitigated the hazards associated with the operation of its nuclear facilities to ensure the protection of the environment and the health and safety of persons
- Hydro-Québec has an effective management system in place that meets the requirements of CSA N286-12

- Hydro-Québec has effective compliance verification programs in place to ensure that facility operations remain in compliance with the licensing basis
 - The CNSC has effective compliance verification programs in place to ensure that facility operations remain in compliance with the licensing basis
217. The Commission is satisfied that Hydro-Québec has a good history of operating experience, noting that CNSC staff have rated Hydro-Québec as “satisfactory” in all 14 SCAs and that it has maintained worker dose and public dose well below regulatory requirements.
218. The Commission notes that CNSC staff’s, as well as the Commission’s, oversight of licensed activities is independent of the length of a licence and is based on a robust regulatory framework. The licence/LCH structure is well crafted to contemplate continuous improvement within the licensing basis over time. The Commission is satisfied that, under this structure, Hydro-Québec’s programs will continue to be adequately maintained over the 20-year licence period. The Commission also notes that, as per subsection 43(3) of the NSCA, it may at any time, on its own initiative, redetermine any decision or order made by it. As a result, the Commission is satisfied that the longer licence period does not in any way affect or impair the robust regulatory oversight that the NSCA both enables and mandates.
219. The Commission is of the opinion that providing opportunities for communities and intervenors to voice their views and for the Commission to hear them is very important to foster and maintain a dialogue with members of the public and Indigenous Nations and communities. It is the Commission’s view that a public proceeding at the midpoint of the 20-year licence can provide such an opportunity. This public proceeding must occur no later than December 2036 and allow for the participation of members of the public and Indigenous Nations and communities. Hydro-Québec’s mid-term update must include an overview of its licensed activities and its compliance with regulatory requirements.
220. The Commission also accepts CNSC staff’s recommendation regarding the delegation of authority for the purpose of licence condition 15.1.

4.0 CONCLUSION

221. The Commission has considered Hydro-Québec’s application to renew its nuclear power reactor decommissioning licence. The Commission has considered the information and submissions of Hydro-Québec, CNSC staff, and all participants, as set out in the material available for reference on the record.

222. Based on its consideration of the evidence on the record for this hearing, and in accordance with section 24 of the NSCA, the Commission hereby renews the nuclear power reactor decommissioning licence issued to Hydro-Québec for its nuclear facilities located on the south shore of the St. Lawrence River in Bécancour, Quebec. The renewed licence (PRDL 10.00/2046) is valid from July 1, 2026, to June 30, 2046. The Commission directs that, at the midpoint of the 20-year licence period, Hydro-Québec shall present to the Commission a comprehensive mid-term update on the conduct of its licensed activities and compliance with requirements, as part of a public Commission proceeding that allows for interventions.

Document original signé en français

Marcel Lacroix (PhD)
Commission Member
Canadian Nuclear Safety Commission

June 16, 2026

Date

Appendix A – Intervenors

Intervenors – Submissions	Document(s):
Opal A. Roszell	CMD 26-H101.2
Regroupement des organismes environnementaux en énergie	CMD 26-H101.3
Canadian Coalition for Nuclear Responsibility	CMD 26-H101.4
Northwatch	CMD 26-H101.5
Jocelyn Simon Daigle	CMD 26-H101.6