



2026 April 30

Candace Salmon, Commission Registrar
 Canadian Nuclear Safety Commission
 280 Slater Street
 P.O. Box 1046, Station B
 Ottawa, Ontario K1P 5S9

Dear Ms. Salmon,

Application for Renewal of the Nuclear Research and Test Establishment Decommissioning Licence for Whiteshell Laboratories

This letter serves as Canadian Nuclear Laboratories (CNL) application to the Canadian Nuclear Safety Commission (Commission) to request the renewal of the Nuclear Research and Test Establishment Decommissioning Licence for Whiteshell Laboratories (WL), NRTEDL-W5-8.00/2027, which expires 2027 December 31 [1]. CNL is requesting an 8-year licence, starting 2028 January 01. The information required to be contained in a licence renewal application pursuant to the *Nuclear Safety and Control Act* [2] and associated regulations is provided in Enclosure 1 [3]. In addition, a supplementary report, aligned with REGDOC-1.2.2, *Licensing Application Guide: Class IB Processing Facilities* [4], is included with this application as Enclosure 2 [5]. The report provides information on CNL programs, a summary of CNL's capabilities, the status of key projects and outlines the activities CNL will undertake in the next licence period. Together this application and the enclosures provide detailed information demonstrating CNL will continue to make all necessary provisions to protect the health, safety, security of persons and the environment, and maintain national security and measures required to implement international obligations.

WL was established in 1963 as Canada's second national laboratory for the peaceful research and application of nuclear technology. Core research and development programs included fuel development, reactor safety, waste management, and hydrogen safety. Notable facilities included the WR-1 reactor, which tested reactor component configurations and various fuel types in the shielded facilities, including hot cells and multiple accelerators. Other unique research facilities included the full scale thermal hydraulic test loop, which was configurable as any CANDU reactor, and various hydrogen combustion test cells (these facilities have since been decommissioned). Notable research programs led to the development of the deep geologic disposal method for spent fuel, the dry storage of spent fuel in concrete canisters, and

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the immobilization of used fuel. WL also had extensive biology research programs for the study of radiation effects on fauna and flora.

The hot cells continue to remain operational and are amongst the best-conditioned facilities of their kind in Canada.

WL is Canada's first and largest scale, nuclear restoration project. CNL has pioneered decommissioning strategies and tactics at this site, resulting in the safe demolition of over 45 buildings. CNL has developed deep experience in waste management of hazardous and non-hazardous materials.

CNL's request for an 8-year licence is supported by its extensive experience in operating and decommissioning the WL site, the demonstrated maturity of its programs, a well-documented, stable, and declining hazard profile, and the continued strengthening of relationships with Indigenous Nations through engagement on site restoration goals and site activities. CNL will provide routine and required updates to Canadian Nuclear Safety Commission (CNSC) staff and the Commission aligned with licence conditions, REGDOCs and other requirements. Further justification for the proposed 8-year licence term is provided in Attachment A.

WL will maintain the current scope of authorized activities into the next licence period, including the continued use and operation of existing facilities, such as material handling activities within the hot cells, and will continue the decommissioning of the site. CNL is proposing a consolidation of the WL on-site licence to transport with the existing WL Site Licence, as detailed in Attachment B. CNL is also proposing that the financial guarantee for WL be applicable for the duration of the licence, as detailed in Attachment C. Any activity outside the licensing basis will trigger a licence amendment, ensuring continued compliance with CNSC requirements.

Additional supporting information for the application is included as follows:

- **Attachment A:** Justification for the requested licence term.
- **Attachment B:** Request to include an on-site Licence to Transport as part of the WL decommissioning licence.
- **Attachment C:** Request to accept the 2015 expressed commitment by the Minister of Natural Resources as the enduring financial guarantee for the WL site.
- **Attachment D:** Planned engagement for the WL Licence renewal.
- **Attachment E:** List of documents submitted to support this application.

CNL is committed to building and growing long-term, mutually beneficial working relationships with Indigenous Nations and communities regarding the Whiteshell Laboratories Restoration Project, including the future of the site. Our relationships are developed on a foundation of respect for the rights of Indigenous Nations and our goal is to build and preserve openness, transparency, and trust. CNL is steadfast in its commitment to supporting meaningful engagement through the licence renewal application process and subsequent licence terms.

CNL believes in open and transparent communication in a timely manner to maintain positive and supportive relationships, and confidence of local communities, key audiences, and

Indigenous Nations, communities, and organizations. CNL's Public Information and Disclosure Program [6] provides a structured approach for transparent communication, including regular updates on operations, environmental performance, and developments on WL relicensing. This includes regular meetings with First Nations, the Manitoba Métis Federation, and the Public Liaison Committee, as well as municipal meetings and community engagements. CNL recognizes that Indigenous perspectives and public input are critical in licensing decisions. CNL values intervenor perspectives and welcomes opportunities to address both in-person (oral) and written interventions at the upcoming WL licence renewal Commission proceeding.

CNL is committed to maintaining open channels for engagement throughout the relicensing process and beyond, and has established a targeted communications strategy for that purpose, see Attachment D.

The licence application does not request any changes to the current licenced activities. As a result, CNL does not anticipate any new or novel potential adverse impacts on constitutionally protected Aboriginal and/or treaty rights, which could trigger the Crown's duty to consult, and accommodate, if any. The Crown must ultimately determine whether the honour of the Crown, and the duty to consult, and accommodate, if any, are engaged. Early engagement activities with Indigenous Nations, communities, and organizations on licence renewal are further described in Attachment D and CNL intends to continue meaningful engagement during the licence renewal process as described therein. If CNL becomes aware of any alleged potential adverse impacts to constitutionally protected rights, CNL will advise accordingly.

This application does not include a request for a licence amendment related to decommissioning of the WR-1 reactor via in-situ disposal.

Should you require any further information please contact me at 431-347-0478.

Yours sincerely,



Brian Wilcox

General Manager and Whiteshell Laboratories Site Licence Holder

Enclosures (2)

REFERENCES:

- [1] Canadian Nuclear Safety Commission, *Whiteshell Laboratories Nuclear Research and Test Establishment Decommissioning Licence*, NRTEDL-W5-8.00/2027, Expiry Date: 2027 December 31.
- [2] *Nuclear Safety and Control Act*, S.C. 1997, c. 9, Canada.
- [3] *WL 2027 Licence Renewal Application – Information pursuant to the Nuclear Safety and Control Act*, WLD-508760-160-000, Revision 0, 2026 April. (enclosed)
- [4] REGDOC-1.2.2, *Licensing Application Guide: Class IB Processing Facilities*.

- [5] *WL 2027 Licence Renewal Application – Supplemental Information*, WLD-508760-041-000, Revision 0, 2026 April. (enclosed)
- [6] *Public Information Program for Canadian Nuclear Laboratories*, CW-513430-REPT-001, Revision 10.0, 2024 October.

cc. N. Greencorn (CNSC) C. Howden (CNSC) B. Nguyen (CNSC)

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>CR Licensing

ATTACHMENT A. SUMMARY JUSTIFICATION FOR THE REQUESTED LICENCE TERM**Request**

Canadian Nuclear Laboratories (CNL) is requesting an 8-year licence for Whiteshell Laboratories (WL).

Background and Justification

Whiteshell Laboratories (WL) has played a significant role in advancing Canadian nuclear science and technology for decades. Today, WL is advancing one of Canada's most complex nuclear remediation projects, focused on site restoration and preparing the land for its long-term future. Considerable progress has been achieved: more than 45 structures have been safely removed, and over 6,700 cubic metres of low- and intermediate-level waste have been safely transported to Chalk River Laboratories for secure storage. When decommissioning is complete, areas affected by CNL's past operations will have been remediated, with less than one per cent of the former laboratories site remaining under long-term institutional controls (access restriction and enhanced environmental monitoring).

CNL continues to advance this work with a commitment to safety, regulatory compliance, and continuous improvement. Over the past several years, the WL team has strengthened its safety culture, enhanced compliance programs, and implemented improvements informed by operational experience. Engagement with Indigenous Nations and local communities remains central to this effort, ensuring their perspectives are reflected in the long-term vision for the site.

Consistent with established regulatory practice for long-term operations and decommissioning sites, an 8-year licence term provides a stable and efficient planning horizon for WL to progress through defined, multi-year operations and restoration activities. Licence durations in this range are commonly applied across comparable sectors—including WL's previous licence periods, prototype reactor facilities, and long-term remediation or mine-closure sites. The Canadian Nuclear Safety Commission (CNSC) continues to conduct its regular compliance verification and assessments independent of licence duration.

CNL's request for an 8-year licence for the WL site is based on the following:

Experience: CNL has decades of experience in operations, decommissioning, and waste management at the WL site. Since the early 2000s, the WL team of nuclear professionals has carried out a broad range of operational and decommissioning activities, gaining extensive technical and project execution expertise. Throughout this period, the protection of workers, the public, and the environment has remained CNL's highest priority, reflected in ongoing enhancements to safety culture, management systems, and operational oversight. This long-standing experience, combined with demonstrated commitment to performance improvement, supports CNL's capability to safely and effectively manage the WL site over the requested licence term.

Mature Programs: CNL applies a suite of mature and continuously improving management programs that collectively drive excellence across all Safety and Control Areas. These programs operate through a disciplined cycle of planning, executing, evaluating results, and implementing improvements, ensuring that actions remain responsive to operational needs and regulatory expectations. As detailed in Enclosure 2 [A-1], CNL has made significant improvements in Fire Protection & Emergency Management and Human Performance. These sustained enhancements, combined with strengthened oversight and robust program execution, provide a solid basis for confidence in CNL's ability to safely and effectively manage the WL site over an 8-year licence period.

Demonstrated and Documented Hazard Profile: Hazards associated with ongoing operating activities and decommissioning work at the WL site are well understood and documented through key licensing basis documents, including the WL Environmental Risk Assessment, Safety Analysis Reports, Detailed Decommissioning Plans, and Fire Hazard Assessments. These comprehensive assessments demonstrate a stable and well-characterized hazard profile, supporting a predictable operating and decommissioning environment. This stability is consistent with licence durations typically applied to long-term decommissioning sites and supports an 8-year term by providing confidence that the remaining work will proceed within a clearly defined safety envelope.

WL Site Restoration Plan Informed by Indigenous and Public Engagement: CNL is advancing the WL Site Restoration Plan through a structured process that incorporates ongoing engagement with Indigenous Nations and the public. This engagement, supported by formal relationship agreements, Indigenous participation in site-level activities, and regular dialogue, ensures that planning for future site conditions, including long-term management of the low-level waste trenches, is informed by Indigenous rights, interests, and perspectives. CNL's public information activities further support transparency and input by providing accessible updates on WL planning and operations. An 8-year licence period provides the stability needed for this engagement to continue meaningfully, and progress decommissioning and environmental remediation activities at the site.

CNL continues to evaluate the long-term opportunities at the WL site. An 8-year Licence provides stability to continue to progress the decommissioning and restoration, while allowing broader future site-use evaluations to be considered transparently and with ongoing engagement of Indigenous Nations and the public.

CNL recognizes that Indigenous perspectives and public input are critical in licensing decisions. CNL is actively engaging Indigenous communities and stakeholders on the proposed licence term and will continue this dialogue throughout the licensing process. Pre-application feedback received from Indigenous Nations, communities, and organizations, and the public has informed this application, and there is neutral to positive support for CNL to seek an 8-year licence. CNL is committed to maintaining open channels for engagement throughout the relicensing process and the next licence term.

Impact

An 8-year licence will enable CNL to demonstrate 5+ years of sustained safety performance, continue to reduce hazards at the WL site by progressing decommissioning and environmental remediation activities, and allows CNL to further refine its end-state plan with a goal of achieving support from Indigenous Nations and surrounding communities, and explore the potential for a modified ongoing mission at the site. CNL will continue to provide routine and required updates to CNSC staff and the Commission aligned with licence conditions, REGDOCs and other requirements.

References:

- [A-1] *WL 2027 Licence Renewal Application – Supplemental Information*, WLD-508760-041-000, Revision 0, 2026 April. (enclosed)

ATTACHMENT B. REQUEST TO INCLUDE AN ON-SITE LICENCE TO TRANSPORT WITHIN THE WL DECOMMISSIONING LICENCE

Background

Canadian Nuclear Laboratories (CNL) has safely and securely transported nuclear materials by road within the boundaries of its Whiteshell Laboratories (WL) site. Historically, authorization for these on-site movements has been requested on an as-needed basis through a Licence to Transport (LTT) application submitted to the Canadian Nuclear Safety Commission (CNSC) staff for review and acceptance.

Requested Change

To streamline CNL and CNSC processes, CNL is requesting to include a LTT for on-site movements within the WL site decommissioning licence. This change does not reduce regulatory requirements or alter safety and security obligations and applies exclusively to movements within the WL site (i.e., it does not alter requirements for off-site shipments).

All information required by the *Packaging and Transport of Nuclear Substances Regulations* (PTNSR) [B-1] and *Nuclear Security Regulations* (NSR) [B-2] to support this request is provided in Enclosure 1, Table 4 and Table 5 respectively [B-3].

Impact

Including this aspect within the site licence is an efficiency and aligns with practices adopted by other licensees where shipments within controlled-access facilities are included within the site licence. Access to the WL site is strictly controlled, and movements of nuclear materials are managed under established procedures, ensuring continued compliance with the PTNSR [B-1] and NSR [B-2].

This requested change represents a consolidation only, which will improve efficiency while maintaining compliance with regulatory requirements. It does not reduce regulatory oversight, security measures, nor emergency preparedness requirements. CNL remains committed to maintaining and updating its Transportation Security Plan [B-4] and the WL Site Emergency Response Plan [B-5] to ensure ongoing compliance and safety.

References:

- [B-1] *Packaging and Transport of Nuclear Substances Regulations*, SOR/2015-145, Canada.
- [B-2] *Nuclear Security Regulations*, SOR/2000-209, Canada.
- [B-3] *WL 2027 Licence Renewal Application – Information pursuant to the Nuclear Safety and Control Act*, WLD-508760-160-000, Revision 0, 2026 April. (enclosed)
- [B-4] *WL Transportation Security Plan*, 119-508710-PLA-021, Revision 0, 2026 March.
- [B-5] *Whiteshell Laboratories Site Emergency Response Plan*, WL-508730-PLA-001591, Revision 1.0, 2026 April.

ATTACHMENT C. REQUEST TO ACCEPT THE 2015 EXPRESSED COMMITMENT BY THE MINISTER OF NATURAL RESOURCES AS ENDURING FINANCIAL GUARANTEE FOR THE WL SITE

Background

REGDOC-3.3.1, *Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities* [C-1] requires licensees to maintain a financial guarantee that meets the criteria of liquidity, certainty of value, adequacy, and continuity, and that the instrument is reaffirmed every five years or upon licence renewal.

In 2015, the Minister of Natural Resources issued a letter providing an expressed commitment from the Government of Canada to ensure sufficient financial resources are available for the decommissioning of the Whiteshell Laboratories (WL) site (the “Commitment”) [C-2]. The Commitment represents a direct obligation from the federal government and is recognized under REGDOC-3.3.1 [C-1] as an acceptable financial guarantee instrument. The Commission has confirmed its satisfaction with the adequacy of the financial guarantee to support future decommissioning activities in multiple past Records of Decision including the 2024 WL Licence Renewal [C-3]. The Canadian Nuclear Safety Commission (CNSC) staff accepted the Commitment for purposes of the Nuclear Safety and Control Act and its regulations, most recently in [C-4].

Request

Canadian Nuclear Laboratories (CNL) requests that the Commission accept the Commitment as the financial guarantee for the WL site for the entire term of the proposed licence renewal period.

The Commitment satisfies all requirements set forth in REGDOC-3.3.1 [C-1].

Impact

This approach improves regulatory efficiency by eliminating repeat submissions of the Minister of Natural Resources letter. It ensures sustained regulatory certainty and supports streamlined compliance for both the CNSC and CNL.

References:

- [C-1] Canadian Nuclear Safety Commission, *Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities*, REGDOC-3.3.1, 2021 January.
- [C-2] Letter, G. Rickford (NRCAN) to M. Binder (CNSC), untitled, relating to provision of financial guarantees for CNL sites in Canada, 145-NRCANNO-15-0001-L, 2015 July 31.
- [C-3] Canadian Nuclear Safety Commission, Record of Decision, *Application to Renew the Nuclear Research and Test Establishment Decommissioning Licence for Whiteshell Laboratories*, DEC 24-H7, 2024 December 11.

- [C-4] Letter, N. Greencorn (CNSC) and S. Watt (CNSC) to A. Tisler (CNL), *CNL-CRL – CNSC Staff Review of Canadian Nuclear Laboratories' Submission of the Information Regarding Financial Guarantees for all Atomic Energy of Canada Limited Sites Operated by Canadian Nuclear Laboratories*, 145-NOCN-25-0038-L, 2025 October 02.

ATTACHMENT D. PLANNED ENGAGEMENT FOR THE WL LICENCE RENEWAL

In alignment with Canadian Nuclear Laboratories' (CNL's) Public Information Program (PIP), CNL is engaging Indigenous Nations, Governments, communities, and organizations on the licence renewal process for the Whiteshell Laboratories (WL) site. CNL's Public Information and Disclosure Program outlines public activities that occur at CNL, with the objective of addressing the information needs of interested parties. The program has been prepared in accordance with the Canadian Nuclear Safety Commission (CNSC) REGDOC-3.2.1, *Public Information and Disclosure* [D-1]. Key audiences for engagement at WL are detailed in the PIP and listed in Section 1.5 of Enclosure 2 [D-2].

Throughout the licence renewal process, CNL will provide opportunities for discussion and will record and consider all feedback. Feedback will be applied, where applicable, to further refine messaging, address common questions, and maintain open dialogue throughout the engagement process. CNL may undertake various means and methods to assess the general public's level of knowledge and awareness in order to assess the effectiveness of CNL's communications efforts.

Reporting on CNL's engagement efforts will be included in CNL's Commission Member Document.

CNL plans to facilitate ongoing communications and engagement with key audiences about the licence renewal process and the next licence period through a phased approach outlined below.

Phase 1 Engagement: Pre-licence application – 2026 January to 2026 April

With CNL planning to submit its licence application in 2026 April, engagement with Indigenous Nations, local elected officials, and the public focused on the licensing process and CNL's consideration of a longer licence term. This engagement was facilitated through:

- Regularly recurring meetings with Indigenous Nations
- Site tours and presentations with elected officials from local municipalities
- A public webinar
- Six municipal Council Seminar Workshops
- Two community open houses

Phase 2 Engagement: Pre-hearing – 2026 May to 2027 September

For the remainder of 2026, CNL will focus on continuing to share updates about the licence renewal process and key dates in all ongoing Indigenous and public engagements.

In 2027, CNL will look to identify intervenors to ensure concerns and interests are proactively considered and addressed where possible. CNL will support all intervenors by providing all necessary information; ensuring timely responses to licensing inquiries; and support with the preparation of key hearing material, including the Commission Member Document and summaries of Indigenous and public engagement. In particular, CNL will provide all engaged Indigenous Nations a four-week opportunity to review hearing submission material related to engagement to verify the accuracy of content and mutual understanding of engagement.

Phase 3 Engagement: Next Licence Term – beyond 2028 January

CNL's PIP [D-3] provides a structured approach for transparent communication, including regular updates on operations, environmental performance, and commission proceedings. At WL this includes regular working group meetings with First Nations, the Manitoba Métis Federation, and the Public Liaison Committee, as well as municipal meetings and public engagements. CNL is committed to communicating in a timely manner and exchanging information with all key audiences and rightsholders and recognizes the importance of listening and working with interested parties. CNL will continue to use avenues already established through the PIP and other opportunities that may evolve over time depending on the needs and interests of rightsholders and the public to engage through the next licence term.

References:

- [D-1] Canadian Nuclear Safety Commission, *Public Information and Disclosure*, REGDOC-3.2.1, 2018 May.
- [D-2] *WL 2027 Licence Renewal Application – Supplemental Information*, WLD-508760-041-000, Revision 0, 2026 April (enclosed).
- [D-3] *Public Information Program for Canadian Nuclear Laboratories*, CW-513430-REPT-001, Revision 10.0, 2024 October.

ATTACHMENT E. DOCUMENTS TO SUPPORT THE 2027 WL LICENCE RENEWAL APPLICATION

The records listed below along with a Request for Confidentiality Form (as applicable) will be submitted to the Commission Registrar by 2026 May 29. Between the application submission and the commission proceeding for the renewal of the Whiteshell Laboratories (WL) licence, Canadian Nuclear Laboratories (CNL) may make a subsequent submission of documents where document revisions have occurred.

Document Title	Document Number	Revision	Confidential (Y/N)
WL Transportation Security Plan	119-508710-PLA-021	0	Y (prescribed)
Licensing Basis List for Whiteshell Laboratories	900-514300-LST-006931	1.1	N
Administrative Levels and Action Levels for WL Air and Liquid Radioactive Effluent	900-509200-STD-016	0	Y
Radiation Protection Action Levels	900-508740-LST-002	3.0	N
Whiteshell Laboratories Annual Compliance Monitoring Report for 2025	WL-514300-ACMR-010774	0	N
Canadian Nuclear Laboratories Management System Manual	900-514100-MAN-001	3.2	Y
Designated Representatives of the Licensee, Site Licences, Certificates & Permits.	900-514300-LST-001	14.0	Y
Letter, G. Rickford (NRCan) to M. Binder (CNSC), untitled, relating to provision of financial guarantees for CNL sites in Canada	145-NRCANNO-15-0001-L		N
WL Detailed Decommission Plan, Volume 1 – Program Overview	WLDP-02000-DDP-001	2	Y
Pollock & Wright Land Surveyors, TITLE REPORT for Atomic Energy of Canada Ltd. Plant Site Lands	WL-11020-041-000		N
Letter, G. Williamson (AECL) to D. Carr (CNL), Current CNL Applications for Nuclear Facility licence renewals for Chalk River Laboratories and Whiteshell Laboratories- Evidence that CNL has authority from AECL to carry on the licensed activities	145-AECLCNL-26-001-L		N

Document Title	Document Number	Revision	Confidential (Y/N)
Fitness for Duty	900-510000-STD-013	1.2	N
Fitness for Duty: Policy on Managing Alcohol and Drug Use	900-510000-STD-015	1.0	N
Safety and Health – Policy	900-510400-POL-001	4.3	N
Environment – Policy	900-509200-POL-001	3.3	N
WL Effluent Verification Monitoring Plan	WL-509200-PLA-001	2.0	Y
Whiteshell Laboratories <i>Environmental Monitoring Plan</i>	WL-509200-PLA-002	1.2	Y
<i>Public Information Program for Canadian Nuclear Laboratories</i>	CW-513430-REPT-001	10.0	N
Comprehensive Study Report on the Decommissioning of Whiteshell Laboratories (Vol 1, 2 and 3)	WLDP-03702-041-000	0	N
Whiteshell Laboratories Site Emergency Response Plan	WL-508730-PLA-001591	1.0	N
Integrated Waste Strategy	CW-508600-062-000	2.1	N