



CNL-CNSC Administrative Protocol for the Whiteshell Laboratories Proposed In Situ Decommissioning of the WR-1 Reactor

Revision 1 - September 2019

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Summary of Changes

Section	Change	Date
All	Updated to reflect decoupling of Whiteshell (WL) decommissioning licence renewal with proposed in situ decommissioning of WR-1 reactor	September 2019
Part I	Administrative updates (e.g. parties, communication/timing)	September 2019
Part I, Section 3 and 7 and Part II, Section 2	Added clarification that Appendix A will be maintained as a separate document from this protocol	September 2019

CNL-CNSC Administrative Protocol for the Whiteshell Laboratories Proposed In Situ Decommissioning of the WR-1 Reactor

Preamble

Canadian Nuclear Laboratories (CNL) is decommissioning the Whiteshell Laboratories (WL), located near Pinawa, Manitoba, under Nuclear Research and Test Establishment Decommissioning Licence NRTEDL-W5-8.05/2019, which expires December 31, 2019. The decommissioning approach for the site, which was approved by the Commission in 2002, is set out in volume one (program overview) of 12 of the Whiteshell Laboratories Detailed Decommissioning Plan.

Via a licence amendment, CNL is proposing¹ to change the previously approved decommissioning approach for the WR-1 reactor from complete dismantlement to an approach referred to as in situ decommissioning which would accelerate the decommissioning timelines associated with the WR-1 reactor and the rest of the site. This would result in advancing site closure to 2026/2027.

The current licence does not authorize in situ decommissioning of the WR-1 reactor, or any activities associated with this approach. While accelerating the decommissioning schedule does not require a change to the authorized activities permitted by the licence, in situ decommissioning of the WR-1 reactor was not considered when the decommissioning licence was issued in 2002, or when the licence was renewed in 2008 and again in 2018. This approach was also not considered in the environmental assessment (EA) comprehensive study report that was conducted in support of the application for a decommissioning licence in March 2001.

CNL has indicated that it plans to:

- advance decommissioning and site closure to 2026/2027
- remove buildings, spent nuclear fuel and radioactive materials as described by the current decommissioning plans with the exception of the subsurface components of building B100 containing the WR-1 reactor
- manage wastes arising from decommissioning as described by current decommissioning plans with the exception of wastes associated with in situ decommissioning of the WR-1 reactor
- conduct in situ decommissioning of the WR-1 reactor by filling subsurface voids with a concrete-based grout, demolishing above-surface portions of building B100 and covering the remaining monolith with an engineered cap

In situ decommissioning of the WR-1 reactor has been identified as a designated project under the *Canadian Environmental Assessment Act, 2012 (CEAA 2012)*, hence Canadian Nuclear Safety Commission (CNSC) staff have determined that an EA under *CEAA 2012* and a licensing decision under the *Nuclear Safety and Control Act* are required to authorize this new decommissioning approach.

¹ As defined in the CNL document, *In Situ decommissioning of the WR-1 Reactor at the Whiteshell Laboratories Site*, WLDP-03700-ENA-001, Revision 0, April 2016, e-Doc 4997341.

For in situ decommissioning of the WR-1 reactor, Commission approval of the EA and an amendment of the site licence for Whiteshell Laboratories is required. The scheduling of the Commission's proceeding will be determined by the Secretariat at a later date.

To facilitate the preparation and review of documents required for these two decisions, the CNSC and CNL have mutually decided to formally document the various steps in this administrative protocol.

Important note

Nothing in this protocol fetters the powers, duties or discretion of CNSC designated officers, CNSC inspectors or the Commission respecting regulatory decisions or regulatory actions.

Also, this protocol does not change in any way any applicable laws or regulations, application requirements or hearing process as set by the *CNSC Rules of Procedure*².

Purpose

The purpose of this protocol is to outline the administrative framework, milestones and service standards for the EA and licensing activities in relation to the Whiteshell Laboratories proposed in situ decommissioning of the WR-1 reactor, CNL's submission of the technical information associated with the licence amendment application, and the CNSC staff's review of this technical information. This protocol aims to provide efficient project management for the regulatory review of information submitted by CNL associated with these two proposals.

The milestones included in this document have been established using a number of assumptions, some of which relate to the activities of project participants who are not signatories to this protocol. If events unfold differently from what has been assumed in this protocol, the milestones will be revised accordingly.

The remainder of this protocol is divided into three parts:

- Part I – Definition of the framework (parties, duration, communication/timing, issue resolution, reporting, external communications and future revisions)
- Part II – Requirements for the Whiteshell Laboratories proposed in situ decommissioning of the WR-1 reactor
- Part III – Approval by signatories

Appendix A to this protocol specifies timelines for CNSC staff review of the EA and licensing submissions.

² *Canadian Nuclear Safety Commission Rules of Procedure*, SOR/2000-211.

Part I - Framework

1. Parties

The signatories to this protocol have the following roles and responsibilities:

- The CNSC is the responsible authority under the *Canadian Environmental Assessment Act, 2012* for the Whiteshell Laboratories proposed in situ decommissioning of the WR-1 reactor and is responsible for making a recommendation to the Commission for the EA under this act.
- The CNSC has regulatory and statutory responsibilities under the *Nuclear Safety and Control Act* and its regulations. The CNSC is responsible for assessing the application from CNL for the Whiteshell Laboratories proposed in situ decommissioning of the WR-1 reactor, and for making a recommendation to the Commission.
- CNL is the licensee for the Whiteshell Laboratories decommissioning licence. CNL is responsible for submitting adequate and complete information associated with the Whiteshell Laboratories proposed in situ decommissioning of the Whiteshell Laboratories WR-1 reactor, per regulatory requirements.

Managers

For this protocol, the following managers represent each party:

- Director, Canadian Nuclear Laboratories Regulatory Program Division, Directorate of Nuclear Cycle and Facilities Regulation, CNSC
- Director, Project Delivery, Whiteshell Laboratories, CNL

The CNSC and CNL will identify an alternate if a primary manager is unavailable.

Executive Management Committee

The CNSC and CNL will form an Executive Management Committee composed of senior management representatives who will receive and review progress reports and resolve issues.

The members of the Executive Management Committee are:

- Director General, Directorate of Nuclear Cycle and Facilities Regulation, CNSC
- Director General, Directorate of Environmental and Radiation Protection and Assessment, CNSC
- Vice-President, Environmental Remediation Management, CNL
- Whiteshell Site Head and General Manager and Licence Holder, CNL

The CNSC and CNL will identify an alternate if a primary Executive Management Committee member is unavailable.

2. Duration

This protocol will come into effect on the date of the last signature. It will terminate on the latter date that the Commission announces its EA and licensing decisions on the Whiteshell Laboratories proposed in situ decommissioning of the WR-1 reactor.

3. Communication/timing

As stated previously, the CNSC has determined that Commission approval is required to authorize the Whiteshell Laboratories proposed in situ decommissioning of the WR-1 reactor. CNL therefore needs to conduct an EA for the proposed in situ decommissioning. It must also submit the required documentation associated with the licence amendment application for consideration by CNSC staff in order to make a recommendation to the Commission and for the Commission to make a decision.

This documentation includes but is not limited to:

Information associated with the proposed in situ decommissioning of the WR-1 reactor

- an environmental impact statement for the project, which includes both an operational and post-closure safety analysis report
- a revised Whiteshell Laboratories Detailed Decommissioning Plan Volume 1 - Overview Program (or addendum)
- a revised Whiteshell Laboratories Detailed Decommissioning Plan Volume 6 - Whiteshell Reactor #1: Building 100

Information associated with the licence amendment

- information required by sections 3, 6, 7 and 15 of the *General Nuclear Safety and Control Regulations*
- information required by sections 3 and 7 of the *Class I Nuclear Facilities Regulations*
- a regulatory compliance matrix associated with the licence amendment for the Whiteshell Laboratories
- any new or revised (with changes identified) operational programs that are relevant to the activities associated with in situ decommissioning of the WR-1 reactor

To meet the agreed upon deliverables as scheduled in Appendix A to the protocol, CNL will need to submit complete, sufficient and high-quality information to CNSC staff as early as possible. This will allow adequate time for the CNSC staff review and satisfactory resolution of issues. In addition to this correspondence, the parties will meet as necessary to clarify intentions and facilitate mutual understanding, with the aim of achieving the targets.

Within one week of receiving technical information submitted by CNL under this protocol, CNSC staff will first perform a cursory review (for conformity with the information requirements of content sufficiency and completeness) to identify any obvious deficiencies and communicate any such problems to CNL.

CNSC staff will prepare and submit their Commission member document (CMD) to the Commission Secretariat according to the timeline in Appendix A to the protocol, on the basis that CNL has been proactive in submitting

the information outlined in this protocol and that CNSC staff have deemed this information complete and sufficient, such that by the time CNSC staff prepare their CMD:

- CNSC staff have had sufficient time to perform their review
- all technical issues have been resolved

Appendix A will be maintained as a separate document from this protocol to facilitate revisions.

4. Issue resolution

The parties to this protocol will make their best efforts to resolve any differences of opinion in the interpretation or application of this protocol in an effective and timely manner.

The following review and dispute resolution mechanism will be used during the review to assist timely completion.

Step 1: Issue identification

It is the intention of both parties to resolve issues related to the submission of the technical information and the regulatory review through direct discussions and collaboration between the managers.

CNSC and CNL staff will hold monthly meetings to review progress and highlight areas of potential disagreement. Additional meetings may be called for urgent matters as required.

If an issue cannot be resolved at the staff level, the managers will hold a meeting to discuss the matter and attempt a resolution. If an issue cannot be resolved at the managers' level, document the situation (typically with a brief factual summary of the issue and a paragraph representing each organization's view) and forward it to the Executive Management Committee within three working days of the impasse.

Step 2: Meeting of Executive Management Committee

Where the managers cannot resolve an issue, the Executive Management Committee agrees to meet within three working days of notification of the dispute, with the intention of expeditiously resolving the impasse. Issue resolution is to be documented by the Committee.

If an issue cannot be resolved at this level, it will be referred to the protocol signatories within three working days of the Executive Management Committee's meeting, supported by the original or revised documentation from step 1.

Step 3: Meeting of signatories to this protocol

If an issue remains unresolved after step 2, it will be referred with documentation to the signatories to this protocol for resolution. A meeting will be called, typically within five working days, to resolve the issue and document its resolution.

5. Reporting

The managers will jointly produce a brief dashboard-style report on a monthly basis, demonstrating progress, status of activities, and items of concern or at risk of incompleteness. The report shall be submitted to the Executive Management Committee within three working days of each monthly meeting while this protocol remains in effect.

6. External communications

Throughout this protocol's duration, all parties agree to open, transparent communications and that information destined for public release will be coordinated through the managers (or alternates, where designated), with support from each party's communications division. Furthermore, these communications will be done in coordination with, and in consideration of, each party's current communication guidelines.

7. Future revisions

Revisions of this protocol that are limited to adjustments to Appendix A to the protocol shall be coordinated and approved by the managers and included in the monthly report to the Executive Management Committee.

Significant material revisions of this protocol (beyond revision to Appendix A to the protocol) shall be coordinated by the managers and approved by the signatories (R. Jammal and M. Lesinski) of this protocol.

Appendix A will be maintained as a separate document from this protocol to facilitate revisions.

Part II – Requirements for the Whiteshell Laboratories proposed In Situ decommissioning of the WR-1 Reactor

CNL is to submit information to the CNSC before CNSC staff can prepare a recommendation to the Commission on the EA and on the licence amendment application. This information will need to address the following areas:

1. Environmental assessment

CNL is required to prepare an environmental impact statement that meets the requirements of the *Generic Guidelines for the Preparation of an Environmental Impact Statement pursuant to the Canadian Environmental Assessment Act, 2012*.

CNL will require an approval from the Commission for the acceptance of the EA for in situ decommissioning of the WR-1 reactor.

2. Licence amendment application

The decommissioning licence for the Whiteshell Laboratories expires on December 31, 2019 and authorizes decommissioning activities in accordance with the plans referenced therein. It does not authorize in situ decommissioning of the WR-1 reactor. This protocol assumes that the site licence for Whiteshell laboratories will be renewed by the Commission following the hearings in October 2019, with no changes. Consequently, the licence amendment application must account for in situ decommissioning of the WR-1 reactor.

CNL will require approvals from the Commission for:

- revision to the detailed decommissioning plans (Volumes 1 and 6) and of any associated plans and programs authorizing in situ decommissioning of the WR-1 reactor
- amendment of the Whiteshell decommissioning licence

The regulatory review and associated licensing approvals for the institutional controls required for the long-term care and maintenance of the WR-1 in situ decommissioning end-state are outside the scope of this protocol and will be addressed at a later licensing stage.

Appendix A will be maintained as a separate document from this protocol to facilitate revisions.

3. Details added as project progresses

For clarity, as additional details related to this project and relevant to this protocol are developed and agreed upon, the CNSC and CNL agree to document them in this section and incorporate them into this protocol.

Part III – Approval by signatories

The protocol has been approved, on the dates indicated below.

Ramzi Jammal  Date: 2019/09/25
Executive Vice-President and Chief Regulatory Operations Officer
Canadian Nuclear Safety Commission

Mark Lesinski  Date: 2019/9/26
President and Chief Executive Officer
Canadian Nuclear Laboratories