



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

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Summary of Changes

Section	Change	Date

CNL-CNSC Administrative Protocol for the Renewal of the Whiteshell Laboratories Licence and the 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-W5-8.04/2018, which expires December 31, 2018. The decommissioning approach for the site, which was approved by the Commission in 2002, is set out in volume one (program overview) of twelve of the Whiteshell Laboratories Detailed Decommissioning Plan.

With this licence renewal, 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 and to accelerate the decommissioning timelines associated with the rest of the site. This would result in advancing site closure to 2024/2025.

However, 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 being considered when the decommissioning licence was issued in 2002, or when the licence was renewed in 2008. 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 2024/2025
- 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 relation to in situ decommissioning of the WR-1 reactor, Canadian Nuclear Safety Commission (CNSC) staff have determined, in accordance with the *Canadian Environmental Assessment Act, 2012* and the *Nuclear Safety and Control Act* and their associated regulations, that an EA and a licensing decision to authorize this new decommissioning approach are required.

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.

Commission approval of the EA is required to allow the CNSC to consider the licensing application for in situ decommissioning of the WR-1 reactor, which would be heard in the context of a licence renewal hearing for the Whiteshell Laboratories. CNSC staff have determined that the EA should be heard by the Commission immediately prior to the hearing for the licence renewal planned for fall 2018. The hearing to consider the EA should be heard during the same Commission proceeding. However, the decision related to the scheduling of the Commission's proceeding will be determined by the Secretariat at a later date.

In relation to licence renewal, it is anticipated that if granted, the renewed licence would cover the period through to site closure and, consequently, the activities associated with Phase 3 of the existing decommissioning program. It will not cover the post-closure period (i.e., institutional control).

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 renewal of the Whiteshell Laboratories decommissioning licence and the proposed in situ decommissioning of the WR-1 reactor, CNL's submission of the technical information associated with the licence renewal application, and the CNSC'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 renewal of the Whiteshell Laboratories licence and the 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 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 renewal of the Whiteshell Laboratories licence and the 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 renewal of the Whiteshell Laboratories licence and the proposed in situ decommissioning of the WR-1 reactor, per regulatory requirements.

Managers

For this protocol, the following managers represent each party:

- Program Supervisor, Directorate of Nuclear Cycle and Facilities Regulation, CNSC
- Manager, Whiteshell Laboratories Licensing & Quality Management, 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, Decommissioning and Waste Management, CNL
- Whiteshell Laboratories Site Head and General Manager
- Head, Whiteshell Laboratories Decommissioning and Waste Management

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 renewal of the Whiteshell Laboratories licence and the 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 renewal of the Whiteshell Laboratories decommissioning licence and the 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 renewal 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 renewal

- information required by sections 3, 5, 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 renewal 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 three working days 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

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.

The managers will hold monthly meetings to review progress and highlight any potential major issues or disputes. Additional meetings may be called for urgent matters as required.

If an issue cannot be resolved at this level, the managers will 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 the end of each calendar month that 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 include 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 K. Kehler) of this protocol.

Part II – Requirements for the renewal of the Whiteshell Laboratories decommissioning licence and the 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 renewal 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 renewal application

The decommissioning licence for the Whiteshell Laboratories expires on December 31, 2018 and authorizes decommissioning activities in accordance with the plans referenced therein. It does not authorize in situ decommissioning of the WR-1 reactor. Consequently, the licence renewal application must also 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
- renewal of the Whiteshell decommissioning licence

Appendix A to the protocol lists the licensing documentation that CNL is expected to submit.

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.

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: 21/7/09/21

Executive Vice-President and Chief Regulatory Operations Officer

Canadian Nuclear Safety Commission

Kurt Kehler 

Date: 12 June 2017

Vice-President, Decommissioning and Waste Management

Canadian Nuclear Laboratories