



**Environmental Protection Review Report:
Canadian Nuclear Laboratories
Whiteshell Laboratories – NRTEDL-W5-8.05/2019
Licence Renewal**

JULY 2019



EXECUTIVE SUMMARY

The Canadian Nuclear Safety Commission (CNSC) conducts Environmental Protection Reviews (EPRs) for all licence applications with potential environmental interactions, in accordance with its mandate under the *Nuclear Safety and Control Act* (NSCA), to ensure the protection of the environment and the health of persons. An EPR is a science-based environmental technical assessment by CNSC staff as set out in the NSCA. The fulfillment of other aspects of the CNSC's mandate, such as safety and security, are met through other regulatory oversight activities.

This EPR Report was written by CNSC staff for the Commission, Indigenous peoples and the public. It describes the scientific, evidence-based findings from CNSC staff review of the application by Canadian Nuclear Laboratories (CNL) to renew the Whiteshell Laboratories (WL) Nuclear Research and Test Establishment Decommissioning Licence NRTEDL-W5-8.05/2019. The licence application proposes the continued operations of the WL site over a period of 10 years, from January 1, 2020 to December 31, 2029. During this licensing period, CNL is proposing to continue the decommissioning activities planned for the WL site, including the decommissioning of the Concrete Canister Storage Facility, Waste Management Area, Shielded Facilities and other remaining buildings and infrastructure.

This EPR Report does not consider CNL's proposed *In Situ* Decommissioning of the Whiteshell Reactor #1 (WR-1) Project, which is undergoing a separate regulatory review process under both the *Canadian Environmental Assessment Act, 2012* and the NSCA. Hence, the proposed *in situ* strategy to decommission the WR-1 facility is outside the scope of this licence renewal.

The CNSC's EPR Report can be read as a stand-alone document that focuses on items that are of current public and regulatory interest such as releases of radiological and hazardous substances to the receiving environment, as well as effects on valued ecosystem components and species at risk, during ongoing operations and decommissioning activities.

This EPR Report includes CNSC staff's assessment of the documents submitted in support of the licence application, as well as but not limited to, the following:

- predictions of radionuclides and hazardous substances in the receiving environment, as presented in the 2001 Comprehensive Study Report (CSR) for the Whiteshell Laboratories Decommissioning Project, previously accepted by the Commission
- CNSC staff verification that environmental monitoring data reported by CNL are within those predicted in the 2001 CSR
- CNL's environmental monitoring and reporting requirements including:
 - Annual Compliance Monitoring Reports
 - Progress Reports on the Environmental Assessment Follow-Up Program for WL
- the results of CNSC's Independent Environmental Monitoring Program
- the results from other regional monitoring programs and/or health studies completed by other levels of government in proximity to the WL site

- the results of the Manitoba Metis Federation's Indigenous knowledge study submitted to the CNSC

The information provided in this EPR Report supports the environmental protection conclusions made by CNSC staff in CMD 19-H4 that CNL has made, and will continue to make adequate provision for the protection of the environment, the health and safety of persons as decommissioning activities continue.