



Whiteshell Laboratories Research and Development Complex Decommissioning Project

STATUS - Stage 4 & 7 Demolition

Envirocon Environmental Services has been awarded the contract for the demolition of a 8,600 m² portion of Building 300. All activities are governed by Radiation Protection Requirements including the performance of independent surveys to verify completeness of remediation. All removed radioactive material will be managed on-site in Whiteshell Laboratories (WL) waste management storage facilities. Non-radioactive waste will be verified as clean before being disposed of. All work is completed in compliance with standards set by the both the Canadian Nuclear Safety Commission (CNSC) and the Canadian Standards Association (CSA). Prior to the award of the contract to Envirocon, WL staff have ensured and thoroughly validated the removal of radioactive material, systems and decontamination of contaminated areas within the portion of Building 300 set for decommissioning.



PROJECT BACKGROUND

The WL site currently operates under a ten year Decommissioning Licence (2008 to 2018) granted by the CNSC. WL is a site closure project with a planned closure date of 2024. All decommissioning activities are conducted per CNSC regulations and per licence conditions (current and future).

The Research and Development Complex (known as 'Building 300') was the primary research laboratory for the WL site. Comprising an area of approximately 17,000 m², the complex housed more than 170 labs, approximately 400 office spaces, mechanical rooms and a high bay area for large-scale engineering experiments. The Research and Development Complex decommissioning is part of the plan to reduce the cost and liability at WL.





PROJECT GOAL

To reduce the care and maintenance costs and radiological liability at WL through the staged dismantling of the Research and Development Complex.

THE PLAN

The Research and Development Complex was constructed in five stages, and similarly, the strategy is to demolish the building in stages. Equipment and services are being removed, and the building is being decontaminated to enable demolition. The interim strategy involves retaining a portion of the Research and Development Complex in order to use the space to consolidate nuclear services at the WL site. All equipment and services will be removed, and the building will be decommissioned.

Waste generated during decommissioning activities is categorized according to its level of radioactivity, segregated and packaged. Clean waste (free of radioactive contamination) that can be re-used or recycled is sent off-site; clean waste that is non-reusable is placed in the on-site landfill or sent to an authorized off-site waste management facility. All radiologically contaminated materials are

safely removed and stored at the on-site Waste Management Area.

ACTIVITIES

2007- Research and Development Complex Building 300 Detailed Decommissioning Plan is issued.

2012-2014 – The active ventilation system is removed from the Research and Development Complex, enabling further decommissioning.

2013 – WL Decommissioning Strategic Plan confirms the Research and Development Complex as a priority and validates timelines.

2018- Decommissioning of the New North Extension (known as Stage 7) and North Extension (Stage 4) segments of the complex completed.

2023- The original building (Stage 1), the High Bay research facility (Stage 3) and the full-scale RD-14M reactor test loop (Stage 6) will be decommissioned.

2023-2024- Final decommissioning, radiological clearance and demolition of the remaining portions of the Research and Development Complex.

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