

Information



**PORT GRANBY
PROJECT**

September 2006

Cleanup Process: From Principles to Practice

The Government of Canada and the municipalities are committed to the long-term protection of the environment and the health and safety of the residents of Clarington and Port Hope.

Under the Port Hope Area Initiative, historic low-level radioactive waste management facilities and all properties contaminated with low-level radioactive waste as a result of historic radium and uranium processing operations in Port Hope will be cleaned up. The waste and contaminated soils will be safely managed in new long-term above-ground mound facilities for hundreds of years. Existing low-level radioactive waste management facilities in both Port Hope and Clarington will be relocated and safely managed in new facilities for hundreds of years into the future.

The clean-up and local long-term management of historic low-level radioactive waste now found in the Municipalities of Clarington and Port Hope was addressed in a legal agreement finalized in March 2001, between Canada and the municipalities.

As part of the Port Hope Area Initiative, the Low-Level Radioactive Waste Management Office (LLRWMO) has undertaken detailed environmental studies of the proposed Port Granby and Port Hope Long-Term Low-Level Radioactive Waste Management Projects, on behalf of the federal government.

Criteria for the clean-up of contaminated sites are fundamental to the Port Hope Area Initiative. These criteria address the question, “When is a property clean?”

Principles to guide the cleanup process were developed jointly by the municipalities and the federal government. The Principles recognize the inherent differences in the Port Hope and Clarington projects and consider the “special circumstances” related to the proposed new above-ground mound facility in Clarington and the potential future uses of the existing Port Granby Waste Management Facility once remediation is complete.

The purpose of the Port Granby Long-Term Low-Level Radioactive Waste Management Project is to clean up and provide appropriate, safe, local long-term management for historic low-level radioactive waste and contaminated soils in the Municipality of Clarington.

WHAT ARE CLEANUP CRITERIA?

Criteria are requirements that direct the clean-up of radioactive and non-radioactive contaminants of potential concern (COPCs) found in low-level radioactive waste and soil, in harbour sediments, in water and groundwater. Criteria also apply to radon levels in houses.

The COPCs present in low-level radioactive waste in the Port Hope area are all natural elements in soils, therefore the term “contaminant” only applies at concentrations above criteria considered to be safe for humans and the environment. Contaminants associated with low-level radioactive waste are mainly radium-226, thorium-230, uranium and arsenic.

Cleanup (excavation) will meet or go beyond these criteria to ensure the long-term safety of the public and the environment.



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*Doing the clean-up right, once and for all...****Principles to Guide the Process***

The following Principles set the direction for development of the clean-up criteria. The Principles have been developed through consultation with the municipalities and the public. The Principles shall be considered to be comprehensive, mutually reinforcing, and intentionally linked. No individual principle may be considered separately.

General Principles

- **Properties contaminated with historic low-level radioactive waste shall be cleaned up to permit full enjoyment and use of these properties. Such uses include vegetable gardens, play areas, recreational uses and home construction.**
- **Cleaned up properties can be used for all current and foreseeable unrestricted uses.** Future land uses can be anticipated for most properties within the scope of the Port Hope Area Initiative. Examples are small-scale properties, municipal properties, the Centre Pier, Port Hope landfill and inner harbour.
- **The Legal Agreement shall be adhered to throughout the development and application of clean-up criteria for the Port Hope Area Initiative.** Performance criteria, approval process and methodologies are defined in the legal agreement (*Article 3 and Schedule 2*) between the municipalities and the federal government (March 2001).
- **Clean-up criteria shall meet or exceed the requirements of Canadian regulators (e.g., Canadian Nuclear Safety Commission, Ontario Ministry of Environment, etc.).** Development of clean-up criteria will follow the direction provided by applicable international, national and provincial standards (International Atomic Energy Agency, International Commission on Radiological Protection, Health Canada, Canadian Council of Ministers of the Environment are examples).
- **Consultation with the public, the municipalities, and federal and provincial agencies shall be conducted during the development of clean-up criteria.**
- **Clean-up criteria shall consider all pathways to human health and the environment.** Contaminants in air, water, soil and other environmental media will be considered when developing clean-up criteria.

Special Circumstances

Under the general principles, special circumstances shall be considered, for example:

- ⇒ **Specific cleanup criteria will be developed to reflect anticipated (foreseeable) future land uses for certain properties within the scope of the Port Hope Area Initiative,** including the existing Port Granby and Welcome Waste Management sites, the Centre Pier, inner harbour and the Port Hope landfill and certain roadways. These specific clean-up criteria shall be developed in accordance with the recommended end-use (e.g. passive/active recreational, no residential, etc.)
- ⇒ **Clean-up criteria for the inner basin of the Port Hope harbour will be developed so that future dredging activities will not be affected by historic low-level radioactive waste.** The harbour clean-up should alleviate any concern among the public about use of the harbour and during future dredging no special care shall be required to address historic low-level radioactive waste in the dredged material.
- ⇒ **Clean-up criteria shall reflect special groundwater circumstances.** The completion of the clean-up at some sites (for example, the existing Port Granby facility site in Clarington and the Highland Drive landfill and Highland Drive South Ravine in Port Hope) could require continued environmental monitoring and treatment of groundwater for a period of time before conditions are such that the foreseeable unrestricted use for a particular site would come into effect.
- ⇒ **The Port Hope and Port Granby Long-Term Waste Management Facilities shall continue to be monitored and will remain under the care and control of Canada for the long-term (i.e. hundreds of years).** Design and development of these new long term waste management facilities will focus on community defined end-uses.
- ⇒ **Designated industrial waste in Port Hope will be cleaned up in accordance with Schedule 1 Part B of the legal agreement between Canada and the municipalities.**