NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

MAY 2010

Moving Forward Together:
Canada's Plan for the Long-Term Management of Used Nuclear Fuel

The Government of Canada selected Canada's plan for the long-term management of used nuclear fuel in June 2007. The approach, called Adaptive Phased Management, involves the development of a large infrastructure project in an informed and willing host community. The Nuclear Waste Management Organization (NWMO) is federally mandated to implement this project and is beginning the multi-year process for selecting an informed and willing community to host this national facility.

Used nuclear fuel is a by-product of the generation of electricity by nuclear power plants. Adaptive Phased Management charts a course for the safe, secure long-term management of used nuclear fuel in line with best international practice, meeting the highest scientific, professional and ethical standards and the values and objectives that Canadians have told us are most important.

The plan calls for used nuclear fuel to be contained and isolated in a deep geological repository in a suitable rock formation. All aspects of the project, including the transportation of used fuel from the interim storage facilities to the repository, will be highly regulated by the Canadian Nuclear Safety Commission during the entire life cycle of the facility – from site preparation to construction, operation and decommissioning. The proposed project will meet strict regulatory criteria to protect the health, safety and security of Canadians as well as the environment, and respect Canada's international commitments on the peaceful use of nuclear energy.

The multi-billion-dollar project will also involve the creation of a centre of expertise for technical, environmental and community studies. It will become a hub for national and international scientific collaboration, and it will generate thousands of jobs in a host region and hundreds of jobs in a host community for many decades, regardless of where it is located. It will be implemented through a long-term partnership involving the community, the larger region in which it is located and the NWMO, in a way that fosters the long-term well-being of the community. Dedicated funding for the project is already in place.

Over the past two years, the NWMO has worked collaboratively with interested organizations and individuals to design a fair and appropriate process for identifying an informed and willing community to host the deep geological repository for Canada's used nuclear fuel. We are now beginning to implement this community-driven process.

The NWMO is providing an opportunity for interested individuals, organizations and communities to learn more about Canada's plan for the long-term management of used nuclear fuel, the activities of the NWMO, and the process it will use to select an informed and willing community to host this project. Communities that express interest in learning more are not obliged to participate in the site selection process. The site ultimately selected for the project must meet a robust set of technical safety requirements.

To learn more about this important initiative, please contact:

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The Project

This national infrastructure project will involve the development of a deep geological repository and used fuel transportation system for the long-term management of used nuclear fuel and a national centre of expertise.

In order to be considered, a site will need to have available land to accommodate the surface and underground facilities.

- This project requires a dedicated surface area of about 100 hectares (250 acres) for the surface buildings and associated facilities. As well, there may be a need to limit activities in the immediate area surrounding the surface facilities in order to meet regulatory or other requirements.
- The underground repository requires a subsurface area in suitable host rock of approximately 2.5 kilometres by 1.5 kilometres (375 hectares/930 acres) at a depth of about 500 metres. The NWMO would need to have rights to the land above the underground repository, although alternative uses would be considered, with the community, for portions of this land.