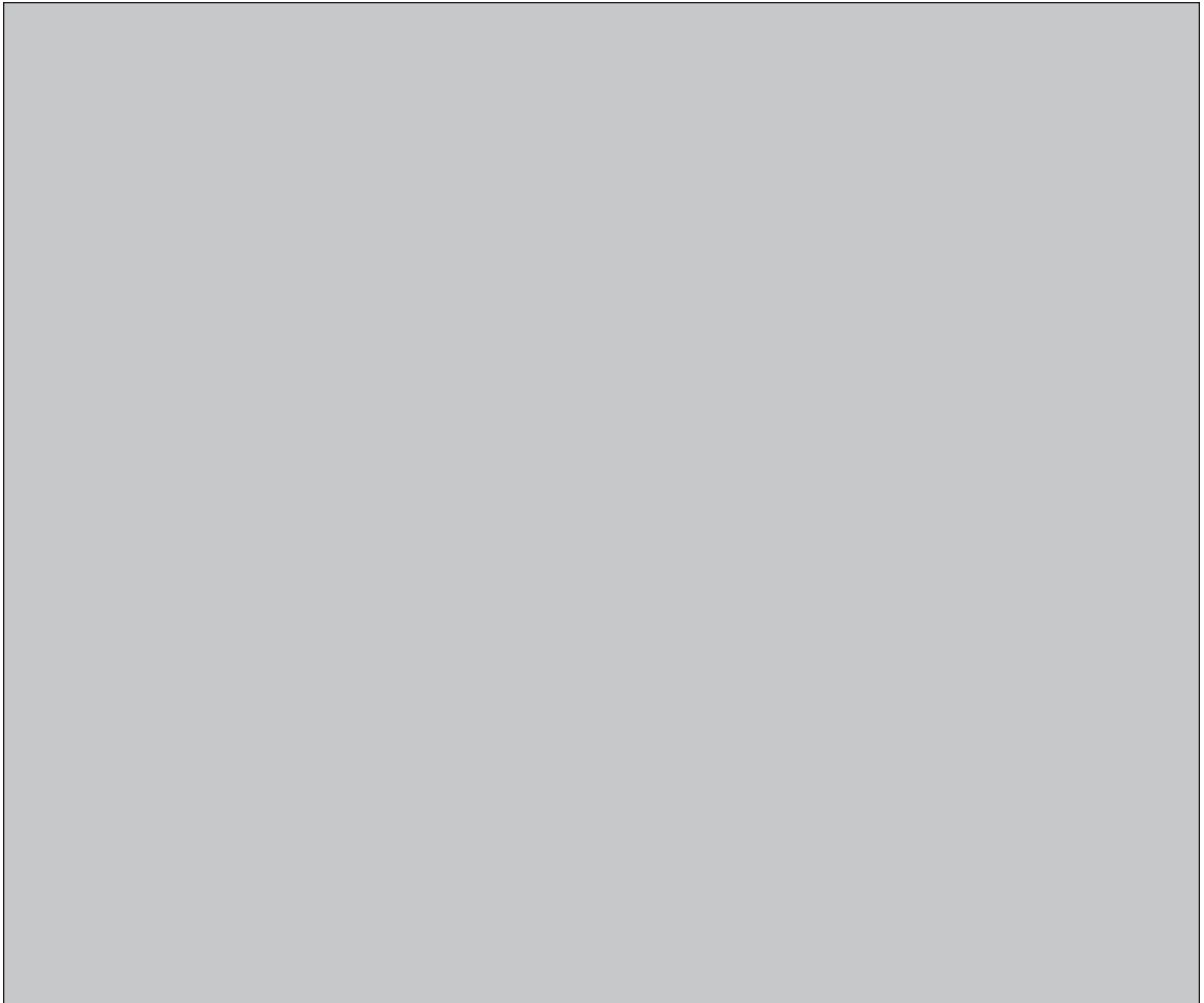


NWMO BACKGROUND PAPERS
7. INSTITUTIONS AND GOVERNANCE

**7-8 REVIEW OF THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT (CEAA)
PROCESS IN RELATION TO NUCLEAR WASTE MANAGEMENT**

EXECUTIVE SUMMARY

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1.0 Executive Summary

The Nuclear Waste Management Organization (NWMO) was established under the *Nuclear Fuel Waste Act* (NFWA) to investigate approaches for managing Canada's used nuclear fuel. Used nuclear fuel is a by-product of the generation of electricity in a nuclear power plant. If not managed properly, used nuclear fuel is hazardous to people and the environment for a very long time. Currently, nuclear power plants are operating in Ontario, Quebec and New Brunswick.

When the NWMO makes recommendations to the Government of Canada on an option for the management of Canada's nuclear fuel waste, this option will likely be subject to an environmental assessment process under the *Canadian Environmental Assessment Act* (CEAA). This background paper outlines the basic elements of this process, the responsibilities, decision points, involvement of stakeholders and potential scenarios related to nuclear waste management.

Environmental Assessment

In general, environmental assessment (EA) is a process to predict the environmental effects of proposed initiatives before they are carried out. The purposes of EA are to minimize or avoid adverse environmental effects before they occur, and to incorporate environmental factors into decision-making.

The CEAA is a federal law that requires federal authorities (departments, agencies, etc.) that are decision makers (i.e. "responsible authorities") to consider the environmental effects of proposed projects before taking any actions that would allow such projects to go ahead. The process is administered by the Canadian Environmental Assessment Agency ("the Agency"). There are also a number of key regulations that make the Act operational such as the *Law List Regulations* (federal permits or authorizations that trigger the Act), the *Inclusion List Regulations* (physical activities that trigger the Act) and the *Comprehensive Study Regulations* (projects that require a comprehensive study under the Act).

There are four different types of EA under the CEAA. A "screening" is typically the minimum level of EA required although some screenings can be reasonably detailed. A "comprehensive study" is the next level and requires more detail, as well as structured public consultation. A "review panel" is the more formal EA involving a group of experts selected on the basis of their expertise and appointed by the Minister of the Environment. They review and assess, in an impartial and objective manner, a project with likely adverse environmental effects using formal public hearings. "Mediation" is an infrequently used voluntary process of EA negotiation in which an independent and impartial mediator (appointed by the Minister of the Environment) helps interested parties to resolve their issues. For all types of EA, a decision is eventually taken to proceed or not proceed depending on the projected significance of the environmental effects.

Recent Amendments

CEAA

On October 30, 2003, amendments to improve and strengthen the CEAA came into force. Although the basic triggering mechanisms of the Act have not changed, there are a number of amendments that will impact the EA process related to nuclear waste management. These include additions to the purposes of the original Act (e.g. to emphasize federal-provincial harmonization and the involvement of Aboriginal peoples); the inclusion of Crown Corporations such as AECL under the Act; a new role of federal EA coordinator to improve efficiency; changes to improve the Comprehensive Study process and include a participant funding program; a new Canadian EA Registry with mandatory posting requirements; and new duties and powers for the Agency.

Nuclear Safety and Control Act

In May 2000, the *Nuclear Safety and Control Act* (NSC Act) came into effect. The NSC Act was the first major overhaul of Canada's nuclear regulatory regime in over fifty years and replaced the *Atomic Energy Control Act*. The NSC Act establishes the Canadian Nuclear Safety Commission (CNSC) to replace the Atomic Energy Control Board and provides the authority and basis for licencing nuclear activities

Amendments to Regulations under CEAA

On October 24, 2003 amendments to key regulations under the CEAA came into force to align the federal EA process for the nuclear sector with the requirements of the NSC Act. The amendments reflect the NSC Act and recognize the establishment of the Canadian Nuclear Safety Commission (CNSC). These amendments to the regulations under CEAA ensure that EAs will be required before the CNSC takes actions to licence a nuclear-related project.

Federal-Provincial Relations

Some projects require authorization from both the federal government and a provincial or territorial government. Without close cooperation, a project might need to undergo separate EAs, resulting in unnecessary duplication, confusion, and excessive costs. Harmonization of Canada's various EA processes helps create a more favourable atmosphere for private-sector decision-makers by streamlining approval processes and reducing planning uncertainties and delays.

The CEAA allows the Minister of the Environment to enter into agreements with provincial and territorial governments relating to the EA of projects where both governments have an interest. The bilateral agreements provide guidelines for the roles and responsibilities of each government. Agreements are imminent in Ontario and Quebec and although progress on a formal agreement has not been made in New

Brunswick, a project-specific agreement could be established where needed. Joint federal-provincial review panels have been successfully utilized in the past and will likely come into play in the future for the more significant options of the NWMO.

Conclusions and NWMO Implications

The federal EA process will come into play in the future when the NWMO makes a recommendation to government and then moves to an implementation stage. Although the NWMO (and the utilities) will be deemed the proponents for any project, the federal government will also play a significant role in an EA process, predominantly through the licencing responsibilities of the CNSC and the responsibilities of the Agency to administer the CEAA.

If an option for deep geological disposal is recommended and accepted by the federal government for a particular site, it is likely that a review panel would be recommended (even though it would theoretically start as a “comprehensive study”). The project would be referred by the Minister of Natural Resources to the Minister of the Environment for establishment of the review panel. The review panel would focus on the region of the proposed site and invite the participation of the relevant province and/or territory. The result of such a review panel would be recommendations to proceed, proceed with alterations or not proceed with a project depending upon the significance of the predicted environmental effects after mitigation.

The same scenario would likely unfold if any other large-scale above or below ground proposal were to be recommended and accepted that would involve centralizing the storage of the nuclear waste. Although the federal EA process would again theoretically begin with a “comprehensive study”, the extensive requirement for transportation of the nuclear waste along with the anticipated public concern would likely dictate the need for a review panel. Again, the review panel would likely concentrate on the centralized storage site location but also involve regions where the waste is currently located and areas along proposed transportation routes.

If the option of storage at the existing reactor sites is recommended and accepted, the EA process could take a different shape. This could involve projects such as expanding the capacity for dry storage of the waste either within or outside a currently licenced nuclear facility. The CNSC licences or renewal of licences may only require a “screening” if the proposed project were to fall within these existing boundaries. If the project were to include areas outside of the existing boundaries of the nuclear facility, a “comprehensive study” would be required. The CNSC currently undertakes rather detailed “screenings” of projects including consultation of the public, such that the differences between “screenings” and “comprehensive studies” are not significant. Although it is unlikely (even with a recommendation for an option close to the status quo), it is possible that we would not have a “project” under the CEAA and that the Act would not formally apply. Any proposal, however, to postpone a decision on a preferred long-term option would in itself have significant implications and may be deemed worthy of a review panel.

Although a number of scenarios and related EA processes are discussed in this paper, final decisions on the appropriate level of assessment required should wait until an actual project has been identified and more clearly defined. The complexity of the federal EA process and potential legal implications dictate that caution and careful scrutiny are required before decisions should be taken in this regard. The NWMO should not underestimate the time and effort that will be required for any EA process, regardless of the track taken. Although not a given, a full review panel appears to be a likely outcome for assessing a more significant NWMO recommendation and should thus be anticipated.