

# The NWMO Study Process

# BACKGROUND

The Nuclear Waste Management Organization was created by Canada's major owners of used nuclear fuel to meet their obligations under the Nuclear Fuel Waste Act. The organization is required to conduct a comprehensive study of approaches for the long-term management of used nuclear fuel and to recommend a preferred approach to the Government of Canada by November, 2005. It will then implement the approach chosen by the Government. The NWMO must study three methods: deep geological disposal; storage at nuclear reactor sites; and centralized storage, either above or below ground. Other methods may also be considered. The NWMO has committed to "develop collaboratively with Canadians a management approach that is socially acceptable, technically sound, environmentally responsible, and economically feasible."

### STUDY PROCESS

The NWMO has adopted an iterative study process, undertaken in phases to allow information, analyses and thinking to be considered in a staged manner. Citizens are involved not only in developing the NWMO recommendation, but in shaping the work plan as well.

The need to conduct research in a step-wise fashion was identified through an early series of informal **Conversations about Expectations** with a crosssection of interested Canadians who were asked about their interests and how they wanted to be consulted. As a result, a broad range of individuals and communities of interest are being engaged in an open and transparent dialogue to build the analytical framework which will be used to assess various management approaches and to develop the NWMO recommendations. The NWMO is also collaborating with aboriginal organizations to support dialogue processes designed and implemented by them. The NWMO began Exploring the Fundamental Issues in the second phase of its work. This period involved a variety of activities including the commissioning of background and research papers, and a series of workshops to explore key concepts. The work was summarized in the first discussion document, *Asking the Right Questions?*, which provided the foundation for the NWMO study.

The document included a description of the challenge facing Canada, a preliminary discussion of potential methods for the long-term management of used fuel, and ten key questions proposed to serve as the basis for building an analytical framework that could be used to compare the approaches. *Asking the Right Questions?* established a baseline of information for in-depth dialogue and deliberations. As Canadians were engaged on the first discussion document, the NWMO undertook work to further define the management approaches, and to determine how to use the analytical framework in a comparative assessment of the options. The findings from engagement and dialogue activities continually fed into the work of the NWMO.

An Evaluation of the Management Approaches commenced with the third phase of the study. In this period, the refined analytical framework was applied to compare the revised management approach descriptions. This preliminary assessment was to help reveal the relative strengths of the approaches, assist in identifying the risks, costs and benefits of each, and allow for a description of the social, economic and ethical considerations associated with them. Two significant documents are published in phase three.

A second discussion document, *Understanding the Choices* expands on what the proposed management approaches might look like and discusses how the analytical framework to assess them has evolved. It also presents the initial comparative assessment of the proposed approaches for discussion. An intensive period of dialogue and engagement following publication of the document will help ensure that the NWMO fully considers and addresses societal expectations. The comparative assessment of the management approaches will be refined based on feedback and work will then begin to determine a recommended approach.

Phase three will culminate with publication of a third milestone document, *Choosing the Way Forward*. This draft study report will describe the final NWMO recommendations in draft form. The document will be offered for in-depth public review and comment as the NWMO prepares its formal study and recommendations for submission to the Minister of Natural Resources Canada.

The last stage of work, Finalizing the Study Report, will begin early in 2005. The final study report will be presented to the government by November 15, 2005. It will contain the NWMO recommendations and, as required by the Act, will include:

- technical descriptions and economic regions for implementation for each management approach considered
- a comparison of the benefits, risks and costs of the approaches considered as well as ethical, social and economic considerations
- funding requirements and an implementation plan for each management approach
- comments of the Advisory Council on the management approaches and,
- a summary of comments received by NWMO as a result of consultations on each of the approaches with the general public and aboriginal peoples

# **NWMO APPROACH**

The NWMO understands that in order for Canadians to have confidence in any approach for the long-term management of used nuclear fuel, the study must fundamentally reflect and respond to their values. The challenge is to develop and apply, as much as possible, a societally-directed framework to guide both the development and also the assessment of the management options and ultimate recommendations to government

#### NWMO Study: A Process of Interactive Engagement

Engagement Early Conversations with Canadians Dialogue on Future Scenarios Aboriginal Dialogues Nuclear Community Dialogues Public Attitude research Submissions

#### Research & Analysis Review of Scientific and Technical Knowledge and Social and Ethical Issues Exploration of Concepts such as Sustainable Development, Precautionary Approach, Adaptive Management

Discussion Document 1: Asking the Right Questions? November 2003 Information on technical methods, Initial thinking about analytical framework

> Engagement Development of Assessment Framework National Citizens' Dialogue National Stakeholder and Regional Dialogues Aboriginal Dialogues Nuclear Community Dialogues Public Attitude research

Research & Analysis Selection of Assessment Methodology Description of Technical Methods Research on Scientific, Technical, Financial and Environmental Considerations

**Discussion Document 2:** *Understanding the Choices* August 2004 Preliminary description of alternative technical methods and analytical framework Preliminary assessment of the alternative technical methods

> Engagement Community and Regional Information and Discussion Sessions Aboriginal Dialogues Nuclear Community Dialogues Public Attitude Research Submissions

Research & Analysis Examination of Additional Issues and Geological Media Design of Management Approaches and Implementation Plans Continued Assessment of Costs, Benefits, Risks of Options

2005

2003

2004

**Draft Study Report:** *Choosing a Way Forward (Draft)* Early 2005 Assessment of management options, Proposed implementation strategies, Draft recommendations

# **Continuing Public Dialogue**

Final Study: Choosing a Way Forward 2005

Submitted to Minister of Natural Resources Canada by November 15, 2005 Final assessment of options and recommendations, Summary of public comments, Advisory Council comments

As the NWMO engages citizens, interested groups and experts through all stages of its study process, their insights and perspectives help shape the study at a fundamental level. Through its milestone discussion documents, the NWMO shares its work and its thinking at each stage for review and comment by all interested Canadians. For additional information visit our website: www.nwmo.ca

# nwmo

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