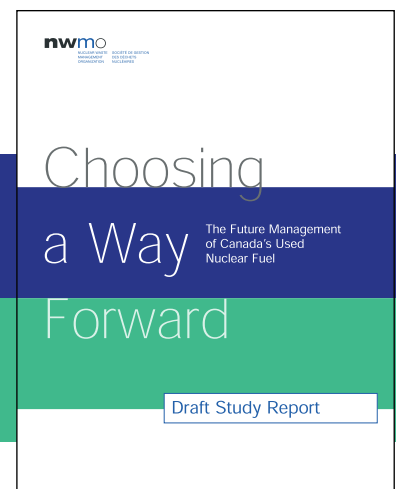


Dialogue Report

Dialogue on *Choosing a Way Forward* The NWMO Draft Study Report Pinawa, MB - June 22, 2005

Stratos



NWMO Background Papers

NWMO has commissioned a series of background papers which present concepts and contextual information about the state of our knowledge on important topics related to the management of radioactive waste. The intent of these background papers is to provide input to defining possible approaches for the long-term management of used nuclear fuel and to contribute to an informed dialogue with the public and other stakeholders. The papers currently available are posted on NWMO's web site. Additional papers may be commissioned.

The topics of the background papers can be classified under the following broad headings:

1. **Guiding Concepts** – describe key concepts which can help guide an informed dialogue with the public and other stakeholders on the topic of radioactive waste management. They include perspectives on risk, security, the precautionary approach, adaptive management, traditional knowledge and sustainable development.
2. **Social and Ethical Dimensions** - provide perspectives on the social and ethical dimensions of radioactive waste management. They include background papers prepared for roundtable discussions.
3. **Health and Safety** – provide information on the status of relevant research, technologies, standards and procedures to reduce radiation and security risk associated with radioactive waste management.
4. **Science and Environment** – provide information on the current status of relevant research on ecosystem processes and environmental management issues. They include descriptions of the current efforts, as well as the status of research into our understanding of the biosphere and geosphere.
5. **Economic Factors** - provide insight into the economic factors and financial requirements for the long-term management of used nuclear fuel.
6. **Technical Methods** - provide general descriptions of the three methods for the longterm management of used nuclear fuel as defined in the NFWA, as well as other possible methods and related system requirements.
7. **Institutions and Governance** - outline the current relevant legal, administrative and institutional requirements that may be applicable to the long-term management of spent nuclear fuel in Canada, including legislation, regulations, guidelines, protocols, directives, policies and procedures of various jurisdictions.
8. **Workshop Reports** - provide information on the outputs and outcomes of some NWMO engagement activities including discussions and expert workshops.
9. **Assessments** - provides perspectives on the advantages and limitations of the management approaches under study.

Disclaimer

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Dialogue on *Choosing A Way Forward*
The NWMO Draft Study Report
Pinawa, Manitoba, June 22, 2005

DIALOGUE REPORT

August 8, 2005

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DIALOGUE ON
CHOOSING A WAY FORWARD
THE NWMO DRAFT STUDY REPORT

– DIALOGUE REPORT –

Pinawa, Manitoba
June 22, 2005

Submitted to:

Nuclear Waste Management Organization

August 8, 2005

Prepared by:



Stratos Inc.
1404-1 Nicholas Street
Ottawa, Ontario
K1N 7B7
tel: 613 241 1001
fax: 613 241 4758
www.stratos-sts.com



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1 Introduction

1.1 Session Objectives

The Nuclear Waste Management Organization (NWMO) hosted the first of six dialogue sessions on its *Draft Study Report: Choosing a Way Forward - The Future Management of Canada's Used Nuclear Fuel* in Pinawa, Manitoba on June 22, 2005.

Participants to the dialogue sessions were invited on the basis of their prior involvement during the NWMO study process, including the compilation of background information, as well as workshops, roundtables, contributors to technical studies, and dialogue and engagement activities on a broad range of issues undertaken by NWMO since November 2002. A total of 16 participants attended the sessions. Appendix I provides a listing of the NWMO research and engagement activities from which the Dialogue Session participants were identified.

The purpose of the dialogue session was to:

- Provide an opportunity for participants to comment on the draft NWMO recommendation and *Draft Study Report*;
- Provide a forum for an exchange of views; and
- Provide the NWMO with the opportunity to improve the recommendation before it is finalized.

This report is a summary of views expressed at the dialogue session. The meeting was not intended to reach consensus among participants, though the report notes areas of general agreement.

1.2 Session Opening

Elizabeth Dowdeswell, President of the NWMO, provided participants with an overview presentation of the NWMO and the draft recommendation described in detail in its *Draft Study Report: Choosing a Way Forward - The Future Management of Canada's Used Nuclear Fuel*.

Ms. Dowdeswell informed participants that all inputs to the *Draft Study Report*, including reports on previous dialogue and engagement sessions, are available on the NWMO website (www.nwmo.ca). Finally, Ms Dowdeswell reminded participants that the NWMO is required to submit its final study report and recommendation to the Minister of Natural Resources by November 15, 2005.

2 Participant Views on the Recommended Approach

2.1 Requests for Clarification

Participants requested clarification on a number of points with respect to the *Draft Study Report* and development of the draft recommendation, including:

- Whether the recommendation includes explicit financial provisions for relevant research and development (R&D), and whether such R&D and other services will be funded and contracted by the NWMO;
- The role of the Advisory Council in the development of the recommendation and the *Draft Study Report*;
- The financial surety mechanisms that are currently in place and that are proposed within the *Draft Study Report*, the degree to which these amounts are being safeguarded, and whether they can accommodate flexibility in implementing the recommendation and provide sufficient benefits for affected communities;
- The expenditures of the NWMO in developing the draft recommendation and *Draft Study Report*, and on what the organization will be doing after it submits its recommendation, in November 2005, and the scope and nature of its role as the implementing organization;
- The NWMO definition of community, and whether the *Draft Study Report's* definition extends beyond physical, geographic locations to include cultural communities also;
- How the NWMO will distribute reports on the dialogue sessions and the Study Report and final recommendation itself to all dialogue session participants, including those that do not use computers or do not have internet access;
- Confirming that any centralized, intermediate shallow-depth storage would take place at the same site as future, centralized, deep geological repository.

Elizabeth Dowdeswell and Sean Russell of the NWMO responded to these requests for clarification and directed participants to specific details contained in the *Draft Study Report*, where appropriate.

2.2 General Views on the *Draft Study Report*

Participants commended the NWMO for the approach it has taken in developing the draft recommendation and *Draft Study Report*. Participants expressed support for the integrity of NWMO engagement and dialogue processes undertaken to support its work. The NWMO's efforts and support towards meaningful dialogue with Aboriginal communities were also recognized.

Despite offering support for NWMO's engagement and dialogue activities, some participants did express concern that too few Canadians were aware of the issues involved and that people may not be interested at this point. As such, participants

offered strong encouragement for the NWMO to continue an ongoing dialogue and engagement process with Canadians, including a particular emphasis on Canadian youth. Participants recognized that until there is a particular siting proposal or process in place, people may not want to be involved.

Participants also expressed general support for the *Draft Study Report* itself and the degree of detail and supporting information that it contains. Some participants did express concerns with cross-cutting aspects of the *Draft Study Report*, however, including:

- Concern that a willing host community will be difficult to identify until issues related to any facilities insurance / liability obligations are clarified to ensure protection of private property;
- Concern that the *Draft Study Report* did not go far enough in that it did not examine issues associated with either:
 - The future of nuclear power and the future production of used nuclear fuel; or
 - Moral / legal / trade obligations to receive (or refuse) used nuclear fuel from other jurisdictions, with or without formal ties to Canadian uranium or the CANDU technology; and
- Concern that the *Draft Study Report* is overly optimistic in assuming that future societies will have more expertise, knowledge and institutional capacities to address the issue.

2.3 Views on the Appropriateness and Key Characteristics of the Recommendation

Participants expressed strong agreement on the need to develop and implement an effective management approach for existing nuclear waste, regardless of future decisions on nuclear power. Nevertheless, differences of opinion emerged with respect to the illustrative timelines included in the *Draft Study Report*:

- Several participants thought the illustrative timelines were much too long and that there was a moral obligation for current citizens, politicians, and plant operators to implement a management approach within the expected lifetime of the current reactors (30 to 50 years) as these are the people who have benefited from the use of nuclear power. These participants thought enough was known already and that there were risks in not moving forward quickly, as the necessary knowledge and expertise might be lost if it were not maintained.
- One participant suggested that the recommendation should avoid illustrative timelines as there may not be a technical basis for these timelines. Other participants supported the broad illustrative timelines, but suggested a priority be placed on flexibility since it is difficult to pre-judge the time that might be necessary to provide the education and information for appropriate citizen engagement, including engagement with Aboriginal people.

Despite such differences of opinion, all participants stressed the importance of placing highest priority on initiating siting and related dialogue and engagement activities as soon as possible following a government decision.

Centralized Containment and Isolation

Participants also expressed support for the NWMO recommendation for used fuel containment and isolation in a centralized, deep geological repository. Participants felt that this recommendation is the one most capable of minimizing risks and costs over the longer term. Despite this general support for the concept, however, participants offered some qualifications, including:

- A recognition that site-specific considerations are paramount and that support is conditional on finding a technically appropriate site within a willing host community;
- Some participants expressed concern that successful siting and development could lead to used fuel being imported into Canada and / or an increase in nuclear energy production in Canada; and
- One participant stressed that his support related only to support for a single centralized location for containment and isolation of existing and anticipated used fuel from historical and current facilities. The participant stressed that the NWMO would need to engage in a new round of citizen dialogue and engagement in the event that such a facility will be expected to either accept used fuel from other jurisdictions, or accept used fuel from future reactors in Canada.

Phased Decision-Making

Participants also expressed general comfort with the concept of phased decision-making as it was seen to provide important opportunities for continuous learning from Canada's own and others' experiences in this area. Phased decision-making was also supported as it was seen to contribute to real engagement and would avoid predetermined outcomes that might undermine community support. Support for phased decision-making came with a proviso, however, that it not lead to an overly protracted process. A suggestion was made for NWMO to identify explicit decision-making milestones and make recommendations with respect to acceptable timelines and provisions for penalties if these timelines are not kept.

Interim Shallow Storage

Some participants questioned the NWMO provision for interim centralized shallow-depth storage at the centralized site. These participants questioned the need for such a provision, as well as the degree to which it has been adequately studied. These participants believe the used fuel is safe and secure at present reactor sites and could remain there until the deep geological repository is built. Other participants offered support for this provision, however, as a means to build capacities and confidence and improve decision-making with respect to ultimate containment and isolation of used fuel in a deep geological repository. These participants also noted that this provision reflects views expressed in earlier NWMO dialogues.

Retrievability and Continuous Monitoring

Participants strongly agreed with the need for continuous monitoring of the used fuel, but offered mixed support for the provision of retrievability, with some believing this to

be a critical aspect that would allow for recovery if something goes wrong, or if future uses of the potentially valuable material in used nuclear fuel is found. Others believed this provision of retrievability to be unwarranted and costly.

2.4 Opportunities for Improving the Draft Study Report and Recommendation

Participants made a number of suggestions for strengthening the *Draft Study Report* and recommendation, which, in their view, would contribute to increased support and public confidence in the recommendation. These suggestions included:

- Some participants suggested that the NWMO's identification of a "Fourth Option" was not appropriate. In their view the articulation of this option could lead to confusion and uncertainty. These participants suggested that the recommendation could be strengthened by clearly stating that:
 1. Really, it is Option 1 (deep geological disposal) that is being recommended, with the provision for adaptive management and phased decision-making; and
 2. That the recommendation is an integrated management approach involving aspects of all three options identified for study in the Nuclear Fuel Waste Act, with the final recommended outcome being that of Option 1 (deep geological disposal).

Other participants expressed support for the recommended "Fourth Option" as it was seen to describe an appropriate public engagement and decision-making process, without being prescriptive of the outcomes of that process.

- A desire for improved discussion of transportation-related issues in the report, including the extent to which this is an ongoing and well studied activity, the extent to which it affects different communities, and the extent to which it raises security issues;
- Expectations that the Final Study Report will include a fuller discussion of the R&D needs that have already been identified to support the recommendation and its implementation¹;
- A request for a more comprehensive discussion of the rationale for the provision of an interim, shallow storage facility at the central site;
- Expectations that the NWMO will make more comprehensive and specific recommendations with respect to the principles and engagement processes that will underpin the siting process; and
- Finally, participants suggested that the *Draft Study Report* and recommendation would benefit from increased clarity of language, including elimination of jargon.

¹ Participants were directed to Chapter 16 of the Draft Study Report where research and development issues are discussed in detail.

3 Participant Views on the Conditions Required to Implement the Approach Successfully

Participants addressed four key implementation issues and offered their views on how implementation could proceed in a manner that builds public confidence and that leads to successful outcomes. The implementation issues addressed were:

- Siting;
- Citizen engagement;
- Research and intellectual capability and
- Financing.

3.1 Participant Views on Siting

Participants noted that the *Manitoba High-level Radioactive Waste Act* places restrictions on the provision of facilities for the storage and/or disposal of used nuclear fuel in Manitoba. Nevertheless, participants did make a number of suggestions for NWMO consideration with respect to siting:

- Participants stressed the need for NWMO to initiate siting-related activities immediately upon submission of the recommendation. Participants believe the siting exercise and the identification of a willing and suitable host community will be challenging and will take considerable time. Participants suggested that NWMO work to identify quickly a “short-list” of no more than “5 to 10” possible host communities on which it can focus its initial siting efforts. In compiling such a short-list, participants suggested:
 - NWMO prepare a “prospectus”, including a discussion of risks and benefits, and invite “bids” / expressions of interest from potential communities;
 - NWMO place priority on consideration of communities with historical involvement in deep underground mineral extraction. It was felt that such communities would provide access to an appropriately skilled workforce. Moreover, such communities would be comfortable with the concept of underground activities and, where mineral deposits have been exhausted, might be interested in the opportunity to diversify / rejuvenate their local economies.
 - NWMO develop and consult on a clear list of criteria that will be used to select the short-list of possible candidate sites. Participants suggested that such a list include criteria related to:
 - Avoiding rivers / lakes generally, and protected areas;
 - Ensuring geological suitability,
 - Avoiding areas with economic potential arising from known mineral deposits; and
 - Avoiding areas of large population density.

3.2 Participant Views on Citizen Engagement

Participants stressed the importance of citizen engagement, especially with respect to engagement of potential host communities. Participants stressed the need for NWMO to develop and implement a credible communications program, centred on the use of accessible and jargon-free language.

Participants indicated that, in their view, the NWMO would need to undertake an extensive engagement and capacity building program to support the principle of prior informed consent by any community. Such capacity building needs were identified in areas related to:

- Negotiation skills;
- Understanding and communicating benefits and risks arising from the project;
- Financing pre-siting engagement and independent technical studies; and
- The capacity of scientists and technicians to communicate and dialogue with communities in a respectful, transparent and effective manner.

Participants also identified a number of questions that they felt NWMO will need to think through, including:

- How to engage scattered communities in areas of low population density?
- The need to provide clarity, up front, on decision-making mechanisms (e.g. referendums), and the roles that will be played, or the right to veto, by various groups in that decision-making, such as:
 - Citizens in potential host communities;
 - Local governments;
 - Aboriginal peoples;
 - Cottage associations;
 - Business associations;
 - Communities on transportation routes;
 - Citizens of broader regional administrative bodies; and
 - Citizens of the broader province under consideration.
- Ensuring benefits to the host community are commensurate with community aspirations.

Participants thought that NWMO's objectives would be advanced by including representatives of potential host communities on the NWMO Board throughout the siting process, with permanent representation from the host community itself, once selected. Some participants also thought that the NWMO should eventually be located within the host community.

3.3 Participant Views on Research and Intellectual Capability

Participants in the Pinawa dialogue session demonstrated considerable interest in areas related to research and intellectual capability. Among key concerns of the participants were:

- That the closure of AECL's Underground Research Laboratory will contribute to a loss of relevant capacity in Canada. Participants were especially concerned about expertise in nuclear waste management disappearing should the Government of Canada significantly delay its decision on the NWMO recommendation, or if implementation is protracted. To address such concerns, participants suggested that AECL be asked to turn its Underground Research Laboratory over to the NWMO for the purposes of training, capacity development and to support citizen engagement through visits and demonstrations.
- That with individual nuclear utilities having responsibility for funding implementation of the recommendation via NWMO, including research, there will no longer be a national focal point to support participation and sharing of efforts and lessons-learned through international cooperation;
- The degree of independence of the research that will be conducted, and that the research agenda and budget may be constrained by "artificial" cost considerations rather than "actual" research needs. Participants suggested that NWMO establish an independent research advisory committee to identify technical and socio-economic research priorities and associated budgets, establish a long-term work plan to address these needs, actively promote the necessary research, and oversee the contracting, delivery and of research results;
- Concern that insufficient research of long-term alternatives will be undertaken given the abundant research needs associated with siting and implementation-related issues concerning the deep geological repository; and
- The need to strengthen the technical capacities of a wide range of relevant individuals and organizations, including:
 - The Nuclear Waste Management Organization;
 - Short-listed potential host communities;
 - The Geological Survey of Canada;
 - Universities;
 - Engineering and consulting firms; and
 - Apprentices / future skilled workers.

3.4 Participant Views on Financing

While recognizing the financial surety provisions that have been proposed within the *Draft Study Report*, some participants also expressed a deep concern that governments could not be trusted in the long-term to leave such funds set-aside for their intended purpose. In the short-term, some participants requested greater clarity about how, and by whom, the trust funds are currently being managed. Participants also felt that such fears could be addressed by advancing the timetable for implementation as quickly as feasible.

Participants also expressed concern that the NWMO proposal for adaptive management and phased decision-making makes it difficult to project future financing needs. As a

result, participants supported NWMO's approach of making conservative estimates, such that the availability of funds will not unduly influence future choices with respect to the most appropriate management approach for used nuclear fuel in Canada.

4 Conclusion and Next Steps

Elizabeth Dowdeswell thanked the participants on behalf of the NWMO. Ms Dowdeswell then outlined the balance of the engagement process with respect to the *Draft Study Report*. Participants were encouraged to read the *Draft Study Report* in detail as many of the concerns raised during the dialogue session are addressed in greater detail there. Finally, Ms Dowdeswell encouraged participants to make further submissions to the NWMO via letter, or through the NWMO website at www.nwmo.ca. More information on submitting written comments can be found on the NWMO website.

Appendix I: Dialogue Session Invitations

Participants to the dialogue sessions were invited from the provinces involved in the nuclear cycle - Ontario, Québec, New Brunswick, Manitoba and Saskatchewan. Participants were identified on the basis of their prior involvement with NWMO including engagement and dialogue activities, research activities, and those that expressed an ongoing interest in the work of the NWMO.

In total, Dialogue Session invitees were identified on the basis of their participation in the following NWMO activities:

- Individuals who have made submissions to the NWMO;
- Authors of Background Papers;
- Aboriginal dialogue leaders;
- Traditional Knowledge Workshop;
- Mayors/Municipal leaders and staff of the Canadian Association of Host Communities;
- Ethics Roundtable;
- People from Public Information & Discussion sessions who asked that the NWMO keep them informed; and
- Organizers and participants of key NWMO events:
 - Scenarios Workshops,
 - Technical workshops
 - Public Policy Forum;
 - Community Dialogue Workshops;
 - CPRN Dialogues (those that asked NWMO to keep them informed);
 - National Stakeholders and Regional Dialogues;
 - Nature of the Hazard Workshop.