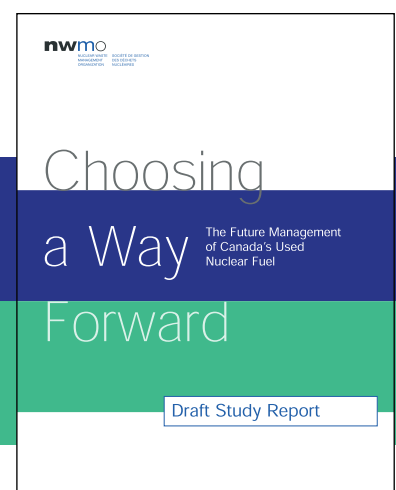


Dialogue Report

Dialogue on *Choosing a Way Forward* The NWMO Draft Study Report Saskatoon, SK - June 28-29, 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.

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Dialogue on *Choosing A Way Forward*
The NWMO Draft Study Report
Saskatoon, Saskatchewan, June 28-29, 2005

DIALOGUE REPORT

August 8, 2005

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DIALOGUE ON
CHOOSING A WAY FORWARD
THE NWMO DRAFT STUDY REPORT

– DIALOGUE REPORT –

Saskatoon, Saskatchewan
June 28-29, 2005

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Nuclear Waste Management Organization

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1 Introduction

1.1 Session Objectives

The Nuclear Waste Management Organization (NWMO) hosted the second of six dialogue sessions on its *Draft Study Report: Choosing a Way Forward - The Future Management of Canada's Used Nuclear Fuel* in Saskatoon, Saskatchewan, on June 28-29 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 33 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

Jim Favel of the Sakitawak Métis Society gave an opening prayer to begin the dialogue session.

Elizabeth Dowdeswell, President of the NWMO, provided participants with an overview presentation of the work of the NWMO and the main elements of the draft recommendation described in detail in its *Draft Study Report*. She emphasized that how the management system for used fuel is implemented is as important as the technical choice to be made.

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, she reminded participants that the NWMO is required to submit its final recommendation to the Minister of Natural Resources Canada by November 15, 2005.

2 Participant Views on the Recommended Approach

2.1 Requests for Clarification

Participants raised a number of questions with respect to the *Draft Study Report* and development of the draft recommendation, including requests for clarification on:

- Contingency plans in the event of a major crisis that could prevent the recommendation from being implemented.
- The financial surety mechanisms that are currently in place and that are proposed within the *Draft Study Report*, specifically clarification on the difference between trust funds for management of spent fuel and other forms of “expressed commitment” to provide financial resources.
- NWMO activities and its funding after the recommendation has been submitted, including public engagement activities and technical work.
- How precedent-setting court decisions regarding the definition of “Aboriginal consultation” might affect the outcome of current dialogue processes, as well as the future siting process given that many potential centralized storage sites are on traditional lands.
- How much of the current Canadian used nuclear fuel was derived from uranium originating in Saskatchewan.
- Why Manitoba was excluded from the list of provinces that are potential sites for centralized storage.
- Whether the construction of a deep geological repository in Saskatchewan could lead it to accept nuclear waste from countries to which it exports uranium. One participant asked specifically about Canada’s obligations under NAFTA to import nuclear waste from the United States.
- How the NWMO communicates with distinct communities in Saskatchewan, specifically Métis and Federation of Saskatchewan Indians (FSI).
- As to what extent security considerations (post 9/11) are driving this process, especially specific aspects such as the provisions for retrieval and the rejection of reprocessing at this time.
- The future obligations of governments and corporations in respecting NWMO’s approach to this process, especially in terms of community engagement, during implementation.
- Whether NWMO has incorporated Aboriginal views into its structure, governance, and process.

Elizabeth Dowdeswell and Sean Russell of the NWMO responded to these questions and indicated where further information is contained in the *Draft Study Report*.

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*. Most participants expressed support for the comprehensiveness of the NWMO engagement and dialogue processes, and the attention to ethical and long-term considerations. Being satisfied with NWMO's work thus far, these participants also expressed hope that the NWMO will maintain enough control to ensure that the values of the current process are preserved during implementation.

Despite offering support for NWMO's engagement and dialogue activities, some participants did express concern about engagement with Aboriginal people, including Métis people. Specifically, these participants questioned whether Aboriginal people, and particularly Métis people, were sufficiently informed to provide meaningful input, and whether their opinions would be respected during implementation. Participants offered strong encouragement for the NWMO to continue its dialogue and engagement process with Aboriginal people and people in northern Saskatchewan with an emphasis on education, including being able to see what is being proposed, to ensure informed participation.

Several participants stated that their communities continue to endure adverse economic, social, environmental, and health impacts from uranium mining and will remain sceptical about the NWMO dialogue and engagement process until the legacy of uranium mining has been acknowledged and addressed. They stated that Aboriginal and community concerns from past experience with uranium mining made them sceptical of how used nuclear fuel will be dealt with. One participant also opposed the inclusion of Saskatchewan in the list of provinces for siting a storage facility, based on the view that Saskatchewan has actually not enjoyed net long-term benefits or value-added from uranium mining to date.

Participants expressed general support for the *Draft Study Report* itself and the degree of detail and supporting information that it contains. However, some participants were concerned that their participation in the NWMO process not be seen as an endorsement of its outcome. They also expressed concerns that the *Draft Study Report* did not go far enough in examining issues associated with:

- The future of nuclear power and the ethics of the nuclear utilities continuing to produce used nuclear fuel in this context if the selected management approach can be considered to be the best of several bad options;
- Moral / legal / trade obligations to receive used nuclear fuel from other countries; or
- Minimization of the amount of used nuclear fuel generated to reduce future management requirements.

2.3 Views on the Appropriateness and Key Characteristics of the Recommendation

Participants agreed on the need to implement an effective management approach for existing nuclear waste notwithstanding the broader issue identified above. Participants also appreciated that tradeoffs were involved in assessing the options and developing the recommended management approach. Nevertheless, differences of opinion emerged with respect to the illustrative timelines included in the Draft Study Report:

- Several participants thought the timeline was too long and that the schedule should be accelerated if possible. Participants were concerned that the perception of a lack of clear urgency would undermine public confidence in the recommendation and that flexibility should not be an excuse for delay. However, participants also felt that the timeframe should allow communities adequate time to develop the necessary capacity to make good decisions.
- Several participants thought enough was known already, especially about deep storage of used nuclear fuel, to proceed immediately and that there were risks in not doing so, as the necessary technical knowledge and expertise to implement the management approach might be lost. One of these participants was also concerned that the illustrative timeline was no longer consistent with the principle of implementing a management approach within the lifetime of the generation that produced the waste.

Centralized Containment and Isolation

Participants expressed strong support for the NWMO recommendation for centralized, deep geological isolation and containment of used fuel. Participants felt that this storage option is the most capable of minimizing the potential impact on human health, the environment and security risks over the long term. Participants felt that this recommendation is also appropriate because research, education and management efforts can be focused on a single site, because Canada offers stable geological environments, and because centralized deep storage offers an economic development opportunity for the host community. However, participants offered some qualifications, including:

- That support is conditional on finding a technically appropriate site, within a willing host community;
- That it is essential that possible host communities be well-informed and educated about nuclear waste in order to make well-informed decisions and to participate economically;
- One participant called for prior informed consent of the willing host community;
- Several participants expressed concern about transportation risks since centralized storage would necessarily involve transporting waste over long distances from the reactor sites. Some of these participants therefore expressed a preference for a centralized storage site close to where most of the used fuel originates.

- A few participants expressed concern that, while deep centralized storage offers many security advantages, it also presents a security risk by placing all waste in one location and providing a single target for anyone wishing to access or disturb Canada's nuclear fuel waste.
- One participant expressed concern that current technology for storage containers and monitoring systems for deep geological disposal require further development.
- Some participants expressed concern about the lack of information in the Draft Study Report on the impact of the heat output of used fuel if it is centralized in a deep geological repository in a single location.

Phased Decision-Making

Participants also expressed general comfort with the NWMO concept of phased decision-making as it was seen to provide important opportunities for continuous learning and time for education and real public engagement, especially in affected communities. Phased decision-making was also supported as it was seen to provide time for reviewing and reforming the regulatory framework as required. However, participants expressed a concern that phased-decision making could lead to an overly protracted decision-making process with various consequences including:

- Increasing the time period during which risks from used nuclear fuel at reactor sites and at the interim shallow-level storage area need to be managed;
- Loss of existing technical expertise on used fuel management;
- Increased risk of cost overruns; and
- Increased risk of political or environmental crises.

Participants therefore recommended that the NWMO identify explicit decision-making milestones and make recommendations with respect to acceptable timelines.

Interim Shallow Storage

Participants offered mixed support for the provision for interim centralized shallow-level storage of used fuel at the central site while awaiting the development of the deep repository. Some participants questioned the need for such a provision, preferring instead a direct transfer of waste from the reactor sites to a deep geological repository to accelerate the process and to minimize used fuel transfer and repackaging risks. One participant expressed concern about technical and public perception risks (societal concern) about shallow storage. Other participants offered support for this provision, as a means to build capacities and confidence and improve decision-making with respect to ultimate deep geological isolation and containment. Several participants also supported this provision because it allows for waste to be removed from reactor sites within a shorter time frame, before the construction of the deep geological repository can be completed.

Retrievability

Participants also 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 technology allows future uses of the potentially valuable material to be found in the used fuel. Others believed this provision to be unwarranted and were sceptical about any potential future use for the used fuel. Some participants also believed that incorporating retrievability into the design could compromise security.

Continuous Monitoring

Participants offered strong support for continuous monitoring of the used fuel as a way of assuring the public that the facility continues to be safe in terms of public health, the environment, technical integrity, and security. Several participants advocated strong public involvement in monitoring by employing community members to conduct monitoring and by publicly reporting monitoring results. One participant emphasized the need for comprehensive baseline environmental, health, and socio-economic studies, to which all future monitoring data would be compared, and which would be the basis for any mitigative action or compensation.

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:

- More clarity on security issues at reactor sites and during transportation;
- The need for baseline studies to be more explicit;
- More details concerning the size of the deep storage facility and a technical discussion of the impact zone around the spent fuel;
- A stronger explanation of the rationale for the Adaptive Phased Management approach, including the identification of explicit decision-making milestones, additional information on the siting process, and recommendations with respect to acceptable timelines.
- Finally, participants suggested that the *Draft Study Report* and recommendation would benefit from the elimination of jargon, the simplification of technical explanations, the use of analogies everyone can understand, and the inclusion of more illustrations. This could be accomplished through writing the Final Study Report using language at the “grade 8 level.”

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

Participants identified the following overarching issues when asked what matters most to them in the implementation of the recommended approach:

- Accurate information and education to the public and affected communities;
- Accountability;
- Transparency;
- Addressing the legacy of uranium mining; and

- Risk management and contingency planning.

Participants viewed these issues as essential ingredients in building and maintaining trust and achieving successful outcomes as the process moves forward.

Participants offered their views on the following five key implementation issues identified in the draft study report:

- Siting;
- Governance;
- Citizen engagement (including long-term benefits);
- Financing; and
- Implementation Plans.

The five overarching issues were common themes in the discussion of each of the implementation issues.

3.1 Participant Views on Siting

Participants strongly supported the characteristics of the siting process proposed by the NWMO in the *Draft Study Report*, such as fairness, special attention to Aboriginal involvement, and informed consent. Participants identified a number of questions and considerations that they felt NWMO would need to think through to ensure that these characteristics are upheld:

- In practice, how will members of a potential host community express consent: through elected bodies or a plebiscite?
- How can a community have a strong voice given the limited powers and jurisdiction of municipal governments as compared to the provincial and federal governments?
- What level of input, consent, or assurance should be given to adjacent communities and those along the transport route?
- How will conflicts between competing interests within and between communities be addressed?
- Community and intervener funding will be needed to hire capacity, expertise, or independent experts.
- Will a contract or agreement be signed with the community or will special legislation be passed that would offer legal recourse to the host community and other affected communities?

Several participants felt that a potential host community should be able to veto a siting decision.

One participant noted that the NWMO and the potential host community have to avoid placing themselves in a position where they have to trust each other blindly. This will

require ensuring that the community has the capacity to review NWMO technical material.

Participants stressed the importance of transparency throughout the siting process. Some participants stated that the community's perception of NWMO's motivations – whether on the one hand to convince the community or on the other to provide information to make a good decision – would have a major impact on building and maintaining trust. One participant observed that public confidence will increase with evidence that the NWMO is working on a solution to the long-term storage of spent fuel. Participants suggested the following actions for increasing transparency:

- Public disclosure of all NWMO expenditures related to engaging potential host communities;
- Clarification of the methods/techniques that will be used to approach potential host communities; and
- Ensuring equal provision of information to affected communities.

Due to the perception that lower environmental and health standards have been applied in rural and northern communities in the past, several participants were concerned about siting a centralized facility for used fuel in northern Saskatchewan. These participants emphasized the need to apply the same level of care for a centralized facility located in a rural or remote community as one in an urban community. One participant stated that the facility should be safe enough to be located in downtown Toronto.

3.2 Participant Views on Governance

Participants understood and accepted that there is an extensive provincial and federal regulatory framework for the nuclear industry in Canada. However, some participants felt that the current framework needs to be reviewed to meet the requirements of used nuclear fuel management, and improved to ensure public confidence during the implementation of the recommendation. Specific concerns about the current regulatory framework were related to the participants' views on enforcement and monitoring activities at uranium mines, liability limits for industry, and baseline study requirements.

Participants also stressed the need for trust and clear communication between the regulator and the host community. It was suggested that the regulator report regularly to the host community and that the regulator produce a quarterly or semi-annual report card on the performance of the centralized facility.

Participants offered several suggestions and comments concerning the structure and role of the NWMO as the process moves towards implementation:

- It was recommended that the composition of the NWMO Board be diversified to include not just the waste owners, but also representatives from the host

- community and other affected communities, scientific experts, and other representatives from the broader public;
- Several participants envisioned the NWMO's role evolving into one of a not-for-profit management and operating company;
 - Participants were satisfied with the NWMO reporting relationship to the federal government, but suggested that an additional monthly reporting requirement to the host community be implemented.
 - Participants appreciated the parallel reporting of the NWMO Advisory Council, but felt that the nomination and appointment process should be reviewed, as Council members are currently appointed by the NWMO Board.

3.3 Participant Views on Citizen Engagement

Participants stressed the importance of citizen engagement, especially the engagement of potential host communities. Participants stressed the need for the NWMO to develop and implement a credible communications program centred on apolitical fact-based information, accessible language that is not 'sugar-coated', and appropriate visualization tools to describe the concept.

Participants indicated that the legacy of uranium mining would need to be acknowledged by the industry, if not addressed, before engaging communities that have been affected by uranium mining.

A number of participants also said that the selected management approach needs to ensure lasting benefits to the host community, including through such possible mechanisms as co-management and real partnerships in the activities.

Participants indicated that, in their view, the NWMO would need to undertake an extensive engagement and capacity building program to support informed decision-making and consent, as well as real opportunities for long-term economic benefits. The following elements were identified as necessary components for such a capacity building program:

- Educating people on how to participate (negotiation skills, preparing submissions, etc.);
- Educating youth within the school system and through the transfer of knowledge from elders;
- Educating the media on nuclear issues;
- Providing equal opportunities for alternative perspectives through intervener funding and the dissemination of independent technical studies; and
- Taking advantage of international experience in radioactive waste management by inviting community representatives from other countries and/or arranging site visits to those countries.

Participants also offered practical suggestions for maintaining and improving public engagement, including:

- Reconvening dialogue groups in the future to look at progress; and
- Using energy bills to raise awareness about nuclear power and waste issues.

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 concern about the long-term reliability of current financial commitments. Some participants requested greater clarity and detail about trust funds and especially about the meaning of “expressed commitment” and “guaranteed”. Participants also expressed concern that a longer implementation schedule would entail greater financial risk in general and a possible transfer of financial burden from today’s ratepayers to future taxpayers.

Participants also requested more clarity on how cost overruns and contingencies, such as used fuel retrieval, would be covered.

In general, participants supported the NWMO’s approach of making conservative cost 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.

3.5 Participant Views on Implementation Plans

Participants stressed the importance of moving forward with long-term used fuel management as fast as possible without compromising fair and informed community decision-making. It was suggested that NWMO identify explicit decision-making milestones and make recommendations with respect to acceptable timelines.

Several participants emphasized the importance of risk management in the development of implementation plans, which would include an analysis of what could go wrong, and the consequences of these events in terms of security, environment, public health, and cost. The need to refurbish the waste containers, the retrieval of buried fuel bundles and relocation of the deep repository, and a catastrophic event at a reactor site requiring the earlier transfer of spent fuel were offered as possible examples. Participants recommended that the risk factors and contingencies be explicitly addressed in the narrative of the recommendation.

Some participants requested that the following issues be explicitly addressed in the implementation plan:

- Assurances that nuclear fuel waste from other countries will not be accepted at the Canadian deep geological repository;
- Details on the provision of long-term economic and social benefits within the host community; and

- Funding provisions for mitigation plans, as required.

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 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 before August 31, 2005. More information on submitting written comments can be found there.

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.