

Advisory Council to the
Nuclear Waste Management Organization

Record of Discussion: February 1, 2005 Meeting

Record of discussion of the meeting of the Advisory Council to the
Nuclear Waste Management Organization (NWMO) /
Société de gestion des déchets nucléaires (sgdn)

held at Toronto, Ontario, commencing at 8:30 a.m. and concluding at 4:00 p.m. on
February 1, 2005.

Present

Advisory Council:

David Crombie	Chairman
David Cameron	Member
Helen Cooper	Member
Gordon Cressy	Member
Fred Gilbert	Member
Eva Ligeti	Member
Derek Lister	Member
Donald Obonsawin	Member
Daniel Rozon	Member

NWMO:

Elizabeth Dowdeswell	President
Kathryn Shaver	Corporate Secretary
Sean Russell	NWMO Staff (Items 5-6)
Murray Elston	Canadian Nuclear Association (Item 4)
Jeremy Whitlock	Canadian Nuclear Society (Item 4)
Marvin Stemeroff	Gartner Lee Limited (Item 5)
John Davis	Golder Associates (Item 5)

PART I

ADVISORY COUNCIL BUSINESS

1. Constitution of Meeting / Approval of Agenda

The Chairman called the meeting to order at 8:30 a.m.
The agenda was reviewed and approved.

2. Minutes of Previous Meeting

The Advisory Council reviewed and approved the minutes of the meeting convened on November 25, 2004.

The Council reviewed and proposed additions to the minutes from the meeting convened on January 22, 2005. The Corporate Secretary was directed to bring forward revised minutes for approval at the next meeting.

The Advisory Council members confirmed approval of the paper finalized on January 22, 2005 in which they address how the Council intends to discharge its mandate under the Act with respect to its comments on the NWMO study. The Chairman directed the NWMO to make this Council paper public through posting on the NWMO website, and through inclusion in the NWMO's forthcoming Draft Study Report.

3. NWMO Meeting with the Minister of Natural Resources Canada

Dr. Cameron reported to the Council on the January 31, 2005 NWMO meeting with Minister Efford, Minister of Natural Resources Canada, attended by himself, the NWMO Chairman, and the President.

On behalf of the Advisory Council, Dr. Cameron reported to the Minister on how the Council was approaching the mandate assigned to it under the Nuclear Fuel Waste Act, and the way in which the Advisory Council was providing ongoing guidance to NWMO through the study period.

PART II

ISSUES ARISING FROM THE ADVISORY COUNCIL: INVITED GUESTS

4. Discussion with the Canadian Nuclear Association and Canadian Nuclear Society

The Chairman welcomed Mr. Murray Elston and Dr. Jeremy Whitlock, guest speakers invited by the Advisory Council to profile their respective organizations' views and perspectives on the long-term management of used nuclear fuel.

Mr. Elston spoke on behalf of the Canadian Nuclear Association.

- By way of introduction, he reviewed the level of nuclear activity in Canada, and made available copies of material on the Canadian nuclear industry.
- In addressing the issue of used nuclear fuel, Mr. Elston emphasized the importance of understanding the volume of used fuel that will be generated by the existing fleet of reactors and ensuring that any long-term management

approach selected is capable of being deployed to address additional used fuel that may be generated in the future.

- Noting that one of the options that the NWMO is required to study by law is that of deep geological disposal, he emphasized the importance of monitoring. Other waste streams are not left unmonitored; used nuclear fuel must also be monitored for some time. The public will seek assurance that there will be continued vigilance with respect to monitoring of any management approach selected.
- Mr. Elston addressed the issue of flexibility, noting that many feel a management approach would be most secure if the used fuel can be readily accessed for either of two purposes: for the prospect of using the unspent fuel; or to retrieve and repackage the fuel as may be necessary to address unanticipated issues to ensure safety.
- He reported that the Canadian Nuclear Association would like to see a recommendation announced and a decision taken to implement the long-term management of used nuclear fuel, the issue now having had the benefit of many years of study. Fairness to future generations requires that we take responsible decisions now.
- A centralized deep repository would offer a responsible way forward.

Dr. Jeremy Whitlock spoke on behalf of the Canadian Nuclear Society (CNS), whose membership includes many who work or have worked in the nuclear industry:

- Dr. Whitlock introduced the Canadian Nuclear Society, and distributed copies of handouts outlining the CNS views regarding the management of used nuclear fuel in Canada. The full handout was subsequently posted on the NWMO website, in the Submissions Library under “Canadian Nuclear Society”, dated February 2, 2005.
(<http://www.nwmo.ca/Default.aspx?DN=1132,349,86,21,1,Documents>)

Some of the key messages from the presentation are outlined below.

- The CNS views nuclear power as an ethical energy choice for Canada, with waste products that have been managed in the short- and intermediate-term in a safe and responsible manner from the outset of the industry. The organization believes that nuclear power development in Canada has proceeded from its outset with ethically defensible attention to the long-term management of its waste products. The CNS believes that a decision on the long-term management of used nuclear fuel is needed to maintain the option of nuclear power technology for future generations, which the CNS believes is an ethical goal.
- A decision on the long-term management of used nuclear fuel is needed under the principle of *sustainable development*, although this principle suggests neither the nature of the management strategy, nor the timing of detailed implementation decisions.
- Value judgments and public trust will be as important as technical considerations. Public consultation is vital in assessing these value judgments and establishing public trust. Public consultation cannot be used to determine the safety of the technologies, nor, as it is currently (and practically) implemented can it determine a level of broad public support.
- Several options for long-term management of used fuel are well understood enough to be technically viable and credible, and the public information disseminated by NWMO is sufficiently comprehensive to highlight the main differences between them.

- An attractive management strategy is one of “convertible storage”, that synthesizes the best features of retrievability and disposal. The NWMO is encouraged to consider this concept.
- NWMO is encouraged to incorporate a principle of “informed voluntarism” in the proposed siting process.

Following the presentations, the Chairman opened the meeting for discussion. Informal discussion ensued as Council members engaged in discussion with Mr. Elston and Dr. Whitlock to pursue in depth some of the points raised in their presentations.

The Advisory Council members thanked the guest presenters for meeting with them.

Mr. Elston and Dr. Whitlock withdrew from the meeting.

PART II

REPORTS FROM THE NWMO

5. Comparative Assessment of Costs, Benefits and Risks

The Advisory Council welcomed John Davis of Golder Associates and Marvin Stemeroff of Gartner Lee Limited.

The President introduced this analytical work commissioned by the NWMO to assist the organization in assessing the three technical methods requiring review under the Nuclear Fuel Waste Act. Specifically, the work was commissioned to assist NWMO with addressing:

- The legislative requirement to examine the costs, benefits and risks of the three management approaches, taking into account the economic regions in which the approaches may be implemented; and
- The legislated requirement to consider the means by which negative socio-economic effects may be avoided or minimized.

Mr. Stemeroff and Mr. Davis reviewed the objectives of this work:

- The NWMO required Golder Associates and Gartner Lee Limited to take as the foundation for this work the preliminary analysis of the NWMO Assessment Team, and the eight objectives identified by the Team to guide the evaluation of the management approaches.
- The study was designed to bring additional quantitative information and qualitative insights to bear to further NWMO’s consideration of the three options.
- This work was to elaborate on the costs, benefits and risks of the three management approaches, in a way that would take into account the economic regions in which the approaches may be implemented, to illuminate the impacts that might arise across regions and that would need to be considered in implementation.

The presenters outlined the approach adopted for the analysis:

- They addressed the methodology adopted to select illustrative economic regions for purposes of understanding how impacts might vary across locations. They emphasized that NWMO did not ask them to advise on regions for implementation. Rather, they were asked to consider the characteristics of a range of representative regions, differing in their physical and socio-economic composition, in order to identify the types of implementation issues arising across economic regions.
- The presenters outlined the quantitative and qualitative indicators applied to compare the three management options against the eight objectives of: public health and safety; worker health and safety; environmental integrity; security; fairness; community well-being; economic viability and adaptability.

Mr. Stemeroff and Mr. Davis reviewed their draft findings on the three management options when compared against the eight objectives established by NWNO as the framework for the analysis.

- Mr. Stemeroff and Mr. Davis reported that all three management methods – deep geological disposal; centralized storage; and reactor site storage – were found to perform comparably. This finding applied to both the public health and safety and worker health and safety objectives. All three options were found to be safe and secure if designed and implemented as envisaged in the conceptual designs.
- The presentation focused on areas of relative difference between the three management approaches as it relates to benefits, risks, and costs. Specifically, the methodology followed in this study was selected to highlight relative differences between locations and management approaches over time.
- The presenters spoke about their work which addressed opportunities in implementation plans to include measures to:
 - avoid or minimize socio-economic effects in implementing a management approach;
 - manage community change;
 - enhance a community's ability to capture benefits; and
 - gain and maintain public trust.

Throughout the presentation, discussion ensued as Advisory Council members sought clarification on the methodology, including the selection of illustrative economic regions and how the assessment took into account implications of climate change and glaciation. Council members discussed the findings with respect to risk, including findings with respect to transportation. Members discussed how the different options performed in terms of adaptability and flexibility and opportunities to adjust direction.

Mr. Stemeroff and Mr. Davis withdrew from the meeting.

6. Management Approach

The President invited Sean Russell, NWMO, to review NWMO's observations on key features of a management approach which draw on findings from NWMO's assessment and public engagement activities.

Discussion took place as the NWMO highlighted the features of this draft management approach.

The President thanked Council members for sharing their preliminary comments and observations with NWMO. She indicated that this draft management approach would be the subject of ongoing development and analysis. Subsequent work would be shared with the Advisory Council at an upcoming meeting.

7. NWMO Annual Report

The President invited Advisory Council comments on the content and general direction proposed by the organization for the NWMO's 2004 Annual Report.

Council members were supportive of the proposed format for this year's report. Suggestions were offered for clarifying NWMO's report, in particular with respect to themes emerging from NWMO's engagement activities.

The President reported that the draft report would be refined and a final draft shared with the Council for final review in an upcoming meeting planned for February.

Following last year's practice, the Advisory Council confirmed its intention to write its own letter to the Minister of Natural Resources Canada in March 2005 with its report on the past year. The Council plans to forward its letter to the Minister in late March.

8. Draft Study Report

The President reviewed an annotated outline proposed for the NWMO's Draft Study Report. She invited Advisory Council comments on the proposed structure of the document. Following brief discussion, the President undertook to share first drafts of each part of the document with the Advisory Council for review and discussion against a set of conference calls and meetings scheduled for this purpose in February and March.

9. Aboriginal Engagement

The President provided a status report to the Advisory Council on NWMO's aboriginal engagement activities, and invited Council discussion.

The NWMO reviewed with the Council some activities under consideration for delivery in spring 2005, in the period following release of the Draft Study Report, to build on the Aboriginal Dialogues already in progress. Members of the Council's Sub-Committee on Aboriginal Engagement provided preliminary comments. They emphasized that NWMO should, in addition, continue to engage Aboriginal Peoples in initiatives designed to engage the general public.

10. 2005 Public Engagement Plans

The President introduced this agenda item to initiate Advisory Council discussion around NWMO's next phase of public engagement planned for 2005, following the release of the Draft Study Report

The President reviewed the objectives set for the NWMO's engagement, including the legislated requirements for consultation. Possible options for engaging the general public on discussion of the Draft Study Report were tabled as a starting point for discussion with the Advisory Council. Lengthy discussion followed as Council members tabled comments and shared advice on the nature and scope of this next phase of public engagement.

- Council considered the appropriate scope of activities, taking into account the legislative requirement to consult and summarize the comments of the general public.
- Discussion addressed the relative merits of different activities and media, and the breadth of interested communities of interest who would want to participate in the next phase of engagement. It was noted that while it is important to hold events that are open to the public, NWMO has found that it is difficult to engage large numbers of the general public. Interest is likely to be higher in the nuclear provinces.
- NWMO was encouraged to maintain the continuity and quality of the base of public input developed to date. It would be important to consider inviting back the individuals who have participated to date and, where appropriate, seek additional perspectives. Some participants have indicated that they would hope for opportunities to participate in further dialogues with the NWMO as the draft study is released.
- The Advisory Council encouraged the NWMO to continue the approach it has used since inception of its work to engage Canadians, noting the richness in inviting two-way dialogue around the key issues. NWMO was discouraged from moving away from this approach which has worked well in bringing together individuals and organizations with diverse views to meet to discuss the management approaches.
- Council members noted the importance of ongoing public opinion research which has considerable reach and enables benchmarking of the views of the general public. It is important that this work continue into 2005, as a supplement to other public engagement.

The President expressed her appreciation for these comments that would be taken into consideration as NWMO continued to work at refining the next phase of engagement.

The President and Corporate Secretary withdrew from the meeting.

PART III

IN CAMERA COUNCIL MEETING

The Council convened in camera for private discussion without the presence of NWMO management.

Termination of Meeting

The Chairman declared the meeting terminated at 4:00 p.m.

Dated the 14th day of March, 2005
Corporate Secretary