

Advisory Council to the
Nuclear Waste Management Organization

Record of Discussion: May 9th -10th, 2003 Meeting

Record of discussion of the meeting of the Advisory Council to the Nuclear Waste Management Organization / Soci t  de gestion des d chets nucl aires (NWMO)

held at Toronto, Ontario, commencing at 7 a.m on May 9th and concluding at 2:00 p.m. on May 10th, 2003.

Present

Advisory Council:

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

Also in attendance:

NWMO:

Elizabeth Dowdeswell	President	
Kathryn Shaver	Corporate Secretary	
John Neate		(Agenda Item 5)
Donna Pawlowski		(Agenda Items 6-8)
Jo-an Facella		(Agenda Items 6-10)
Anthony Hodge		(Agenda Items 6-10)

Other guests:

Mr. Ken Nash	(Agenda Item 5)
Mr. Frank King	(Agenda Item 5)

May 9th, 2003

1. Tour of Pickering Nuclear Station

On the morning of May 9th, a tour of Ontario Power Generation's Pickering Nuclear Generation Station was arranged for the NWMO Advisory Council.

The tour commenced with an introductory presentation. The program included a trip through Unit 3 of the plant, and a briefing and tour of the station's wet and dry storage facilities for used nuclear fuel.

Advisory Council participants in the tour included Dr. Cameron, Ms. Cooper, Dr. Lister and Mr. Obonsawin. For those Council members who were unavailable to participate in this tour, future opportunities will be sought to enable other interested members to participate in a similar tour.

2. Constitution of Meeting – Opening Remarks

The Chairman called the afternoon meeting to order at 2 p.m. on May 9th, 2003.

The Advisory Council welcomed the Chairman back. The Chairman expressed his appreciation to Dr. Cameron for serving as Acting Chairman on his behalf for the March Advisory Council meetings.

3. Minutes of Previous Meeting

On motion duly made, seconded and unanimously carried, the minutes of the Advisory Council meeting held on March 27-28th 2003, a copy having been sent to each member of the Council, were approved as recorded subject to one point of clarification requested by the Council members.

4. Updates on Technical Meetings

a) Report from NWMO's Meetings in Manitoba

The President and Dr. Lister debriefed the Advisory Council on their May 6th meetings in Pinawa, Manitoba.

The President tabled summary notes on the highlights of the meetings held in Manitoba, which included a meeting with the Mayor of Pinawa and meetings with staff from Atomic Energy of Canada Limited at Whiteshell. The President and Dr. Lister reported on their tour of AECL's Underground Research Laboratory at Whiteshell.

The President referenced her May 1, 2003 correspondence to Mr. Peter Baumgartner, copied to the Advisory Council, on the subject of the URL.

b) Technical Briefings

The President tabled for discussion, a proposal for technical briefings to be arranged for the Advisory Council on targeted issues relating to used nuclear fuel and radiation.

The President reported that Dr. Lister had offered to design and deliver this type of briefing for interested Council members. Dr. Lister outlined the approach that such a briefing might take. Dr. Rozon offered his support in providing these briefings.

The Council having confirmed their interest and appreciation for a technical briefing to be arranged by Dr. Lister and Dr. Rozon, the Chairman proposed that time be set aside for such a briefing as part of the agenda for an upcoming Advisory Council meeting.

In Camera Discussion

The NWMO President and staff withdrew from the meeting.

The Advisory Council convened a closed session commencing at 2:45 PM and concluding at 3:10 PM.

5. Guest Speaker and Discussion: **Research Commissioned by Joint Waste Owners**

The Chairman introduced the guest speakers:

Mr. Ken Nash, Vice President - Nuclear Waste Management Division, OPG
Mr. Frank King, Director - Nuclear Waste Engineering and Technology, OPG.

Mr. King provided an overview of the technical research that was previously commissioned by joint waste owners. This work, undertaken by consultants with expertise in this area, addresses the conceptual engineering design work for options referenced in the Nuclear Fuel Waste Act -- deep geologic disposal, centralized storage and storage at reactor sites. The JWO also commissioned work on associated transportation systems for the centralized facility options. Associated cost estimates for each option are under development and expected to be completed later in 2003. In his presentation, Mr. King referenced some of the design criteria and assumptions and the engineering design of the systems.

Mr. King noted areas in which the geologic disposal concept differed from the concept originally put forward by AECL for review by the Seaborn Panel. The JWO group has reviewed the findings and issues raised by the Scientific Review Group (SRG) during the Seaborn Panel process. Some of these issues have been addressed in the concepts put forward by the JWO for research. It was noted that some outstanding issues identified by the SRG were issues to be considered at later stages, such as during the siting or licensing stages.

Copies of the presentation were distributed to the Advisory Council.

With the conclusion of the formal presentation, the Chairman opened up the floor for additional discussion.

The Advisory Council questions touched on a range of issues, such as:

- The engineering design assumptions underlying the different management concepts, and the expected lifespan and durability of the structures and facilities described in each of the JWO concepts.
- The extent of ongoing intervention required with different options.
- The importance of capturing in the financing formulae for the options the full costs associated with intervention at different points in the future. It is important to recognize the full set of costs - the initial investments as well as costs associated with rebuilding or reinforcing the storage structures in future.
- The extent to which retrievability would be permitted by the disposal concept studied by the JWO.
- The size of the geographic footprint associated with the management approaches.
- The extent to which security issues were studied as part of the JWO work.

The Advisory Council inquired as to next steps with regards to the articulation of management approaches. The Council also recommended peer reviews of critical work on the management approaches at an early stage of the process.

- The President noted that the JWO work on engineering design concepts, as presented by OPG, will be made available to the NWMO as a source of information on the management approaches.
- Where the NWMO has outstanding questions or identifies additional areas of study that should be addressed to support the review of management approaches, the NWMO will commission its own work. The NWMO is engaging experts who will be available to provide advice on a wide range of technical matters relating to management approaches. An international panel is also being established to provide guidance and review concerning the development of the analytical framework and its application in assessing the management approaches.
- Some issues and questions will be addressed at future stages, once the government selects a management approach. Further environmental and technical reviews and critical assessment and validation of the design will take place during the siting and regulatory approvals process.

The Advisory Council stressed the importance of presenting the management options in such a way as they will be understood by the general public. The NWMO confirmed that the intention is to articulate the management concepts in general language appropriate for public engagement on the issues. More detailed information would be available through background papers, for those interested in a higher level of detail.

The Advisory Council expressed interest in knowing about other options that might be appropriate for NWMO consideration, beyond the three outlined in the legislation.

As background as to the range of options under consideration in other jurisdictions, the President offered to share with the Council a report from the United Kingdom which outlines fourteen options.

The May 9th session concluded at 4:40 PM.

May 10th, 2003

In Camera Discussion

The Advisory Council convened a closed session, in camera with the Chairman, commencing at 8:00 AM and concluding at 9:30 AM.

6. Discussion Paper – Review of Outline

The President introduced the outline of the discussion paper that had been distributed to the Advisory Council in advance.

The document presented a very early draft of an outline for a public discussion paper, targeted for release by the NWMO in November 2003. The purpose of tabling a draft outline at this time was to share with the Council the NWMO's early thoughts on the paper, and to invite Advisory Council input at an early stage to assist the NWMO in thinking through the appropriate approach to the paper.

The Chairman opened up the floor for Council discussion. The Advisory Council had a lengthy discussion of different aspects of the paper, during which a number of questions and suggestions were put forward. Some of the themes arising in the discussion are outlined below.

There was considerable discussion of the target audience for the paper, noting that this would govern the length, tone and scope of information provided in the paper:

- NWMO should expect multiple target audiences with varying levels of interest and understanding of the issues. A range of documentation may be appropriate, offering different levels of information and detail as may be appropriate for these different audiences.
- Examples of target audiences noted included aboriginal communities, and intervenors from the Seaborn Panel process who are already informed and previously engaged on this issue.
- Perspectives of Canadian youth should also be sought. To some extent the website may engage students and young people. Other opportunities could be considered, such as targeted meetings or dedicated projects initiated in universities, to bring to bear multi-disciplinary study by students and faculty on particular aspects of the NWMO study.
- It was suggested that the NWMO target 3 or 4 geographic communities in which to engage in more intensive consultation as each discussion paper is released. This would provide an opportunity to assess the effectiveness of the papers as communication tools, and monitor the extent to which there is a shift in opinion in these community panels over time.

There was discussion of the language used to clearly communicate the different sections of the paper:

- Noting that the discussion paper will be an important communication tool, the Council encouraged the use of direct language that will facilitate the public's understanding of the issues. To this end, it was recommended that the NWMO consider titles for the paper and chapter headings that project clearly the focus of each section.
- The Council suggested that in order for the paper to be a true invitation to the public to engage in a dialogue, it is important that the paper be clear and not overly technical in its focus.
- The Council put forward suggestions to the NWMO for testing the draft discussion paper with selective audiences before the paper is finalized, to ensure that it communicates well to a general audience. The NWMO could consider sharing the draft with a group of "pre-readers" to invite feedback on the document as a communication tool.

With respect to the structure of the discussion paper:

- There were concerns that the outline as presented may result in a document that is too long and detailed to support broad public engagement on the key issues.
- It was suggested that the NWMO consider having one larger, comprehensive document that would communicate in a clear and transparent way the full landscape of the NWMO study process. From this document, smaller and more targeted consultations papers or handouts could be developed to meet the needs of different communities of interest. Detailed technical background could be accessible on the website, for the audience interested in that further level of detail.
- There was some support for the use of targeted questions/issues to stimulate discussion. This would ensure that the NWMO obtains feedback on key questions during the study process.

On distribution of the paper:

- To the extent that the website is used as one vehicle for making the discussion paper accessible, the NWMO should take proactive steps to make the website known and encourage engagement through the internet. Focused efforts will be required to effectively reach out to Canadians through the website. The President confirmed that the NWMO monitors the website regularly to track its effectiveness.
- The Council advised that a multiplicity of routes should be pursued to channel NWMO information to the public. The website is an important tool, but should not be relied on to the exclusion of other tools for dialogue.
- The Council emphasized that establishing trust with the public on the topic of nuclear waste will likely involve different engagement processes than used in the past.

The Advisory Council emphasized the importance of setting the context for the discussion paper:

- As part of this context, it will be important to outline that Canada is not alone in addressing this policy issue. The NWMO should reference how other societies are similarly grappling with the philosophical questions as they seek the best options for their respective jurisdictions.
- There was support for underscoring the need for societies to be responsible for their actions and guardians of the environment. It is a condition of human kind that we create waste. As in other areas global stewardship, the NWMO study is addressing the responsible management of one of many waste streams.
- It was suggested that the context should also describe features distinctive to radioactive waste, flagging some of the particular concerns and fears of society in regards to mismanagement of nuclear waste, and the reason for tight regulatory controls governing the sector on behalf of the public interest.
- While the NWMO mandate is to seek management options for nuclear fuel waste, it was recognized that some may not characterize used nuclear fuel as waste, by virtue of the remaining energy potential in the used fuel bundles.

There was considerable discussion concerning section of the outline entitled Management Approaches:

- The Advisory Council questioned the draft title of chapter four “Management Approaches”. They registered a concern that this terminology would not readily communicate the intended focus. It was suggested that this other wording be adopted that communicates more clearly to the reader that this section speaks to the different options or alternatives for addressing nuclear fuel waste that are under consideration.
- The NWMO noted that “management approach” is meant to capture more than the technical engineering concept of a facility. It also refers to institutional arrangements, governance structures and funding provisions – all of which are germane in developing trust and integrity around the NWMO recommendation.
- Noting that the Nuclear Fuel Waste Act permits the NWMO to consider options beyond the three outlined in the legislation it was recommended that the NWMO identify early in the process all of the feasible options to be assessed, to ensure that all options benefit from the available time for review and study.
- It was suggested that while there may not be a large number of technical options to consider, they were clearly distinguishable by virtue of some key characteristics. A key distinguishing feature is whether the option offers a permanent solution, with passive safety mechanisms built in, as opposed to an option requiring management and repeated intervention in perpetuity.

- Dr. Rozon presented an initial schematic representation that could be used to characterize and support decisions around the different options. There was Council consensus that the NWMO should attempt a pictorial depiction of the decision process, to try to identify the issues and ramifications of choosing one option over another. It was recognized that it may be difficult to fully capture the issues it was useful to consider a simplified diagram to frame the options in a context that flags the most important questions, outline the philosophical choices.
- There was agreement that this type of schematic diagram is an effective way of articulating the options in terms of the larger philosophical choices, and the related ethical and social dimensions.
- The Council suggested that the larger philosophical questions concerning human intervention were important in articulating the differences between options for purposes of initial dialogue with the public in this first discussion paper. These issues were seen as more critical for consideration at this time, than some of the design elements that distinguished options by engineering features. This would permit the ethical issues be a focus early in the public dialogue.
- The Council noted that costs of the respective management options will be one area of interest to the public. The NWMO confirmed that costs would be one of the aspects of the analysis of the options. Fully developed costing information is not anticipated for the November 2003 paper, but would be included in the subsequent discussion paper planned for 2004.

On the order of the paper:

- The Council made a suggestion that the chapter on “Engaging Canadians” be moved up earlier in the paper, prior to the discussion of the analytical framework and the discussion of options.
- Having heard the Council’s suggestions for depicting the management options in terms of their implications for intervention, the President suggested that NWMO consider integrating chapters 4 and 5. The proposal would be to lead with the fundamental questions in the analytical framework, which becomes the primary focus of the paper. The management options would then be presented against the backdrop of the analytical framework. The discussion around options would emerge from the presentation of fundamental ethical and social questions, rather than a focus on technical or engineering concepts.

The Advisory Council expressed their interest in reviewing the next draft outline for the discussion paper.

In concluding the discussion, the Chairman moved that a revised outline for the discussion paper be a principal agenda item for the June Advisory Council meeting. The paper will be reviewed from the broader point of view of developing trust and integrity in all dimensions of the study and analysis of options.

The President noted that the Council’s comments would be taken into consideration and incorporated in the next draft of the outline that would be circulated to the Advisory Council for review in advance of the June meeting.

7. NWMO Workplan & Council Discussion
8. Plans for Engagement of Aboriginal Communities

The President distributed an updated summary of the NWMO workplan as context for a status update on progress and next steps.

- The NWMO is completing a detailed Engagement Strategy that will be soon shared with Council for discussion.
- One the of the engagement activities being planned is a series of consultations in nuclear site communities, to be led by the Simon Fraser Centre for Dialogue. The Advisory Council suggested that an additional consultation be considered to target a control group -- to benefit from the perspectives of a community that is not host to a nuclear facility.
- There was discussion of opportunities for web-based e-dialogues and other web-based engagement. There was support for using the NWMO website for interactive dialogue with the Canadian public, and as a source of polling of public opinion on issues related to the NWMO study. It was suggested that the design of activities for the NWMO website taken into consideration opportunities to attract and engage a younger cohort.
- Council members reiterated the importance of tracking effectiveness of various engagement and communication tools. There was an interest in tracking both the proactive efforts of the NWMO to engage Canadians, as well as the general level of awareness and engagement of the general public. The President noted that the NWMO would be building in evaluative tools to track the effectiveness of the outreach activities.
- As another vehicle of communication to reach broad audiences, the Advisory Council suggested that cable television may be worthwhile exploring as part of the communication program.
- The President spoke about the latest round of public opinion research that has been fielded, the results of which will be shared with the Advisory Council. The Council suggested that such research will be important in tracking movement in public opinion over the course of the study.

There was a focused discussion with the Advisory Council on plans to engage aboriginal communities in the NWMO study:

- The President debriefed the Advisory Council on some preliminary work initiated to explore how best to structure the engagement of aboriginal communities.
- The Council was debriefed on a one-day workshop to explore some next steps. Mr. Obonsawin, having participated in the workshop, summarized the highlights of the workshop and shared his observations. He outlined the key priorities emerging from the workshop:
 - That some guiding principles be articulated through examination of Traditional Knowledge. Such principles should be integrated into the NWMO's study. It was agreed that the NWMO should target a September

2003 national conference on Traditional Knowledge. It was emphasized that such principles should be integrated into the different elements of the NWMO study and framework, rather than viewed in isolation as a separate set of considerations.

- That there be consultation with first nation communities broadly. As the NWMO establishes different fora for engagement, aboriginal representation should be sought.
- That the NWMO consult with national political representatives for aboriginal communities, as part of this outreach, and seek their thoughts on how best to engage the aboriginal communities.
- That the NWMO contact aboriginal communities or representatives who had previously engaged on this issue through participation in the Seaborn Panel process, with a view to benefiting from their input and understanding on key issues.

The President reviewed the work under way to define the different management approaches:

- As part of this work, NWMO staff will be reviewing the issues and findings of the Scientific Review Group of the Seaborn Panel with respect to the disposal concept that was the subject of the Panel's review. The NWMO will send the Advisory Council a summary of the findings of the SRG review.

The Council was updated on the work under way on the analytical framework:

- The President reported on plans for scenario workshops, to explore some of the larger contextual issues for the study and some of the key factors that will influence selection of a management response.
- The President distributed a paper to update the Council on work in progress relating to the ethical dimensions of the study, further to the discussion with the Advisory Council in March. The paper outlined six core activities that were planned to explore and ensure incorporation of ethical considerations in the NWMO's study and recommendations.
- The NWMO is establishing an international panel of experts to advise on a range of issues throughout the NWMO study. The President invited the Council to forward suggestions with regards to the establishment of the Panel.

With regard to synergy and integration of the NWMO work:

- The Council encouraged the scheduling of Advisory Council meetings such that they will ensure maximum opportunity for Council input early in the development of key areas of the workplan.

9. President's Update

The President updated the Advisory Council on the focus of engagement since the March 2003 Council meeting and the last monthly report.

10. Future Meetings

- The Chairman proposed an Advisory Council meeting for June 2003, to support discussion of two agenda items:
 - a revised outline for the discussion paper; and
 - mechanisms to allow the Advisory Council to play an appropriate role and discharge its responsibilities.

It was agreed that a half-day session would be planned in Toronto, targeted for June 25.

- Dates for the September 2003 Advisory Council meeting were discussed:
 - The Chairman proposed the dates of September 22 and 23, subject to confirmation by Council members.
- The President will arrange a visit to the U.S. Yucca Mountain Repository, to provide the Council members and the NWMO with an opportunity to tour the disposal project under way in Nevada. All Council members will be invited to participate in this tour, subject to their availabilities.

Termination of Meeting

There being no other business, the Chairman declared the meeting terminated at 2:00 p.m.

Dated the 25th June, 2003
Corporate Secretary