

Advisory Council to the
Nuclear Waste Management Organization

Record of Discussion: November 30, 2011 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)

Convened at 22 St. Clair Avenue East, Toronto, Ontario,
commencing at 9:00 a.m. EST on November 30, 2011

Advisory Council Members Present:

Hon. David Crombie Council Chairman
David Cameron
Marlyn Cook
Fred Gilbert
Rudyard Griffiths (morning only)
Eva Ligeti
Derek Lister
Donald Obonsawin

Regrets:

Dougal McCreath
Michel Rhéaume

NWMO Staff Present:

Ken Nash President & CEO
Kathryn Shaver VP, APM Engagement and Site Selection
Gillian Morris Assistant Board Secretary

Contributing Staff:

Mahrez Ben Belfadhel Director, APM Geoscience
Angelo Castellan VP Environmental Assessment and Corporate Support (Item 11)
Jo-Ann Facella Director, Social Research & Dialogue
John Fraser Director, Community Engagement
Chris Hatton Director, APM Repository Design Development (Item 10)
Frank King VP, Chief Engineer (Item 11)
Elena Mantagaris Manager, Government & External Relations
Pat Patton Director, Engagement & Aboriginal Relations
Jamie Robinson Director, Communications
Sean Russell Director, Repository Research & Development
Peter Simmons Director, Municipal Engagement
Bob Watts Director, Aboriginal Community Relations
Derek Wilson Project Manager, OPG DGR, EPCM (Item 11)

ADVISORY COUNCIL BUSINESS

1. Constitution of Meeting / Approval of Agenda

The Chairman called the meeting to order at 9:00 a.m.

2. Minutes of Previous Meeting

The Advisory Council reviewed and approved the record of the previous meeting, convened on September 19, 2011.

UPDATES FROM NWMO

3. President's Report

The President reported on recent activities in NWMO's work programs, his report addressed the following:

- Ongoing relationship-building activities, including another meeting of NWMO's Municipal Forum members, another Elders' Forum meeting, and liaison with Grand Council Treaty 3.
- Media coverage continues to grow and reporting is fairly balanced;
- Community engagement in the Learn More process with the potential for more to enter;
- NWMO management's continued preparations for the feasibility studies phase;
- Work on the logistics study on how to transport used fuel from the reactor sites to a central location continues;
- The decision to postpone submission to the CNSC of the safety case for the DGR in crystalline rock to allow NWMO to include a wider range of geological conditions;
- Completion of the APM cost estimates, since submitted to waste owners;
- OPG's Low and Intermediate Level Waste (L&ILW) DGR, noting OPG is awaiting the appointment of the Joint Review Panel but NWMO continues to prepare responses for anticipated information requests;
- A staffing update on recent hires;
- National developments included the sale of AECL's reactor business to SNC Lavalin; and
- NWMO's agreement to host the International Conference on Geological Repositories (ICGR) in September 2012.

Council members asked to receive information regarding the ICGR in 2012. Council members also discussed the additional work planned for the safety case scenarios.

4. Program Overview and Risk Assessment

Further to the request of the Advisory Council, management identified areas of potential program risk for APM. Kathryn Shaver outlined NWMO's planning assumptions for APM and reviewed some of the potential areas of program risk.

Council discussed the range of external developments that may impact on the project. As part of this discussion, Council members emphasized the importance of maintaining government support for the project in Ontario, Saskatchewan and New Brunswick and at the federal level. Council offered suggestions of key ministries to reach out to as part of this engagement and emphasized the importance of keeping all parties and all levels of government well briefed on the project.

Council members asked about the impact of the events at Fukushima in Japan on NWMO's work. NWMO noted its ongoing monitoring of reaction and lessons learned. Council expressed interest in discussing further and NWMO agreed to address this topic at more detail in an upcoming Council meeting.

5. Status Update on Site Selection: Engagement of Communities

Ms. Shaver provided the Committee with an update on the communities engaged in NWMO's site selection process. To date ten communities have publicly expressed interest in learning more about APM and the site selection process. The most recent entrant into the process is Nipigon, Ontario and there is potential for additional communities to enter the Learn More program.

Initial screenings for nine communities were completed. One community did not pass the screening and is therefore no longer in the process. The initial screening for Nipigon is underway. Capacity building programs continue with all of the communities with detailed briefings, site visits to an OPG interim fuel storage facility, meetings with the Canadian Nuclear Safety Commission (CNSC) and many more activities.

Council was updated on next steps. Communities are now assessing whether or not they wish to continue to the next phase in the siting process and they must formally notify NWMO if the community wishes to proceed. Staff provided the Council with a detailed status of the work taking place in all of the nine communities that are actively engaged. Ms. Shaver noted that cultivating personal relationships is key to sustaining relationships in the communities and emphasized the importance of NWMO staff spending additional time with communities to further foster the relationships and support their learning about the APM project.

A Council member asked questions about transportation and how it is incorporated into the site selection process. Another Council member noted the opposition in Michigan to the OPG Low and Intermediate Level Waste (L&ILW) DGR and whether such international opposition could impact the APM DGR in the future.

Council members raised the topic of NWMO's internal capability to manage the large number of communities in the process, noting the potential of more to come. Ms. Shaver reported that a full discussion with Council will be held at the next meeting to discuss one the approach to the expressions of interest phase. Council was very interested in having a discussion on the duration of the expressions of interest phase, in light of the high level of engagement of communities to date and the importance of ensuring NWMO capacity to devote to multiple feasibility studies.

6. Readiness for Feasibility Studies

Council was briefed on preparations for the next major step in the site selection process, the initiation of the feasibility studies with communities choosing to move to that stage. NWMO reported it is working with the communities to discuss the initiation of the

feasibility studies phase of work. NWMO will be in a position to commence this next step in 2012 with interested communities.

The framework for the feasibility studies has been developed around two phases: desktop studies in 2012; and, field studies which will collect detailed information. Plans for engagement, dialogue, and project management have been developed and the decision-making framework has been clearly communicated to participating communities.

Council also asked questions around a number of other issues related to the initiation of the Feasibility Studies including:

- The nature of resolutions that would be passed by communities' town councils to proceed with the Feasibility Studies phase. Council emphasized the importance of ensuring consistency in the wording of communities' decisions to enter the feasibility study phase;
- How the community and NWMO would work together to expand dialogue in the community, in surrounding areas and with Aboriginal Communities;
- The amount of funding available to communities and surrounding Aboriginal communities, and whether the level of funding was adequate;
- The importance of ensuring community well-being, and leaving communities better off for having been involved in the process, to recognize their contributions to the project;
- The concept of "region", and how regions surrounding a community would be defined; and whether there would be efficiencies in engaging areas where communities' regions might overlap;
- The importance of being transparent with communities on the nature of findings from feasibility studies; and
- Resource plans and project management plan developed for the Feasibility Studies phase. Staff agreed to bring to the next Council meeting more detail on how the project is being managed.

Council commended management on developing excellent communications documents to support the Feasibility Studies phase. Council members identified some editorial refinements to the communications documents.

The Chairman and Council members expressed appreciation for the comprehensive information provided by Pat Patton on Aboriginal communities surrounding the potential host communities engaged in the process.

7. **External Landscape and Risk Management**

Staff highlighted activities underway to build relationships in support of siting and manage risks in the external landscape.

Elena Mantagaris reviewed recent and planned meetings with provincial government officials in Ontario and Saskatchewan. She also reported that NWMO is forming an inter-jurisdictional committee to discuss transportation which includes government representatives from the federal and provincial transportation departments.

Jamie Robinson reviewed recent media coverage noting the volume of media reports has increased substantially in recent months as communities entered the siting process.

Bob Watts discussed recent work with Grand Council Treaty 3 and also discussions with

the Métis Nation of Ontario. Mr. Watts noted that is important for NWMO to understand legacy issues of First Nations communities.

8. Re-Development of the Elders Forum

Bob Watts provided an update on the November Elders' Forum meeting and invited Council guidance on the re-development of the Elders Forum. Mr. Watts reviewed the possible approaches for proceeding with the re-development. Council members had a lengthy discussion on this topic.

Council members shared their perspectives based on attendance at the recent Elders Forum. A member commented on the behavior from some of the Forum members and recommended a clear code of conduct be put in place. Other members identified areas that will need greater clarity in the new terms of reference, concerning Forum operations. Council members suggested that once the Board reviews and agrees with the approach to the re-structuring, that a full terms of reference and code of conduct be circulated to existing Elders' Forum members so they may view and comment on the final draft. Council members urged that the terms of reference be clear on the intended scope/focus of the advice sought and that the Elders Forum is an advisory body to NWMO.

There was agreement amongst Council members that the priority is to restructure the Elders Forum, while signaling that youth involvement is important and will continue, in a format to be determined. Members suggested more time be provided to consider the specific format for engaging youth. Several members suggested a Youth Forum be set up that operates separately from the broader Elders' Forum. It was acknowledged that youth in the form of helpers may still be needed for Elders Forum members.

Council members passed the following motion:

IT IS HEREBY RESOLVED THAT:

The Advisory Council wishes to advise the Board of its support for management's proposal for restructuring the Elders Forum. For greater certainty that proposal includes taking the draft approved terms of reference out for final review and input during the month of December with individual Elders Forum members and National Aboriginal Organizations.

The motion was made, seconded and unanimously passed.

9. Independent Technical Review Group (ITRG) Report

Dr. Alan Hooper, the Chair of the ITRG presented the group's 2011 report. Dr. Hooper reported that the impressive development of the NWMO's APM Technical Program has continued, now with a clear focus on the selection of a preferred site. The initiative to evaluate options for recovering stored used fuel and transporting it to a repository site will enable NWMO, in partnership with reactor site operators, to present a coherent system for long-term management of used fuel.

He reported that the ITRG felt that work within the APM Technical Program to build confidence in the safety case is appropriately focused and most of the output will be required for direct application in interpreting information from site investigations. The ITRG noted that NWMO's Report "RD&D Program 2011" was a major achievement in

explaining the rationale for the technical program in a highly readable and accessible manner. The ITRG also reported that NWMO will need to review the scope of the program once the number and nature of potential sites for evaluation and investigation is known.

Council members asked questions related to:

- Technology available for systems to hoist extremely heavy containers;
- Whether the ITRG recommended any new technical work;
- How/if the ITRG considers socio-economic factors of NWMO's work; and
- Whether NWMO staffing levels in the APM Technical Program are considered adequate, and the availability of qualified staff and how NWMO can continue to work with universities to ensure the availability of future qualified staff.

10. APM Technical Program

Sean Russell provided the Council with an update on the APM Technical Program. He reported that the APM conceptual designs and cost estimates for a deep geological repository and used fuel transportation system were completed. He also reported that an interim report on the 4th Case Study postclosure safety assessment in crystalline rock using a very low permeability reference geosphere was completed in December 2011 and a 5th Case Study postclosure safety assessment in sedimentary rock is proceeding.

Chris Hatton provided an update on the Repository Design Development elements of the APM Technical Program. He reported that an independent review was undertaken by SKB in 2011 on NWMO's design development plan and their comments have been incorporated. Mr. Hatton discussed NWMO's logistics study to look at the various methods for transferring used fuel from the reactor sites to the APM repository. He also noted that a container sizing study to determine the optimum size of the used fuel repository container was underway. The study of copper coating technology and radiological risk assessment during transportation was also reviewed. Mr. Hatton also provided a staffing update for this area of work.

Council members discussed:

- Who owns the intellectual property related to work developed by NWMO;
- How NWMO's practices compared to those of other international programs;
- The nature of copper coating technology under review;
- How the cost estimates were developed for a used fuel transportation system;
- How Aboriginal Traditional Knowledge is being incorporated into NWMO's technical program; and
- The options for re-packaging the waste and if there will be standardized packaging.

11. Review of NWMO Support to OPG

Frank King updated the Council on recent and planned activities in support of OPG L&ILW DGR Project. Mr. King reported that OPG is awaiting the appointment of the Joint Review Panel but NWMO continues to prepare for information requests. Angelo Castellan reported that he recently accompanied a delegation on a visit to the Waste Pilot Plant (WIPP) in New Mexico.

Derek Wilson reported on the activities in the design and construction phase work in support of OPG's L&ILW DGR. He reported that all of the objectives of the design and

construction work for 2012 had been completed. Health, Safety and Environment performance was excellent with no reportable incidents. A second internal audit of the site found there were no non-conformance issues. Mr. Wilson also reported that detailed engineering activities continued and are projected to be at 50% by the end of November.

12. Other business

Council members proposed that opportunities should be sought to communicate NWMO's innovative approach to public engagement and work with communities. In this regard, members offered a number of suggestions to provide greater profile around NWMO's engagement work.

Staff undertook to work further with Council to implement the suggestions for possible editorials by the Chairman, and potential discussions in the university context.

Upcoming Meetings

The next meeting of the Advisory Council is Monday, February 6, 2012.

12. In Camera Session

It was determined that an in camera session was not required.

Termination of Meeting

The Chairman declared the meeting terminated at 3:00 pm.

Dated the 6th day of February, 2011

Vice President, APM Engagement and Site Selection