

NUCLEAR WASTE MANAGEMENT ORGANIZATION (NWMO)

**BOARD OF DIRECTORS
MEETING**

September 26, 2013

AGENDA

1. Constitution of Meeting and Approval of Agenda
2. Minutes of Previous Meeting
3. Business Arising from the Previous Minutes
4. *In Camera* Session
5. Report from the Audit, Finance & Risk Committee
6. President's Report
7. Update on APM Siting Process
8. Review of Draft 2014-2018 Business Plan
9. Draft 2014 Performance Measures
10. Business Risk
11. Five Year Review of Lifecycle Cost Estimate for APM
12. Update on APM Technical Program
13. Update on Regulatory Approvals Phase of OPG L&ILW DGR
14. Update on Design and Construction Phase of OPG L&ILW DGR
15. Report from the Advisory Council
16. Report from the Siting Committee
17. Legal / Corporate Secretary Report
18. Next Meeting of the Board
19. *In Camera* Session

Conclusion of Meeting

MINUTES
OF THE MEETING
OF THE BOARD OF DIRECTORS OF THE
NUCLEAR WASTE MANAGEMENT ORGANIZATION (NWMO) /
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES (SGDN)

convened in Toronto, ON
on September 26, 2013
commencing at 9:00 a.m. EDT

Present

Gary Kugler	Director, Chair
Pierre Charlebois	Director
Donn Hanbidge	Director
Ron Jamieson	Director
Darren Murphy	Director
Ken Nash	Director, President & CEO
Deborah Poff	Director
Ian Ross	Director
Josée Pilon	Director

Staff in attendance:

Chris Hatton	Director, APM Repository Design Development (except items 1-4)
Michael Hung	Chief Financial Officer (except items 1-4)
Pat Moran	General Counsel and Corporate Secretary (except item 4)
Gillian Morris	Assistant Board Secretary (except item 4)
Sean O'Dwyer	VP, Human Resources (except items 1-4)
Kathryn Shaver	VP, APM Engagement & Site Selection (except items 1-4)
Bob Watts	Director, Aboriginal Community Relations (item 7)
Derek Wilson	VP, L&ILW DGR Design & Construction (except items 1-4)

1. Constitution of Meeting and Approval of Agenda

Notice of the meeting having been given to all of the Directors of the Company in accordance with the by-laws and a quorum being present, the Chair declared the meeting duly constituted for the transaction of business and called the meeting to order at 9:00 am.

The agenda for the September 26, 2013 meeting was approved.

2. Minutes of Previous Meeting

The minutes and *in camera* minutes of the meeting of the Board of Directors held on June 6, 2013, copies having been sent to each member of the Board, were approved.

3. Business Arising from the Previous Minutes

Pat Moran reviewed the status of the action items from previous meetings.

4. In Camera Session

The Board convened an *in camera* session to discuss the report from the Chair of the Human Resources and Compensation (HRC) Committee.

5. Report from the Audit, Finance & Risk (AFR) Committee

Mr. Ross provided a report from the Audit, Finance and Risk Committee meeting held on September 25, 2013. Mr. Ross reported that the Committee discussed the following:

- the preliminary 2014-2018 business plan;
- the 2013 performance objectives report and the draft 2014 performance objectives;
- an update from the Pension Management Committee reviewing the pension plan performance;
- NWMO's business risks;
- an update on the lifecycle liability management program;
- a discussion regarding capacity funding to external parties to provide assurance that payments are effectively controlled, funds are not misused and NWMO's reputation is preserved;
- plans for the 5-year review of the APM lifecycle cost estimate;
- management reports reviewing financial results, a cash flow forecast and the compliance report; and
- a review of the Chair and President's expenses.

The AFR Committee also reviewed and approved the proposed audit plan by Deloitte LLP for the external audit of NWMO's financial statements and pension fund statement and recommended that the Board approve the audit fees for both the audit of the financial statements and the pension fund statement.

IT IS HERBY RESOLVED THAT:

Remuneration of the external auditors, for undertaking the external audit of NWMO's financial statements for the fiscal year ending December 31, 2013 be approved as proposed.

The motion was made, seconded and unanimously passed

Directors discussed Mr. Ross's report and asked questions regarding NWMO's internal controls on funding to external parties. Directors agreed that an annual internal audit in this area would be appropriate as external party funding is an important area to monitor to maintain NWMO's credibility and reputation (*). Directors also suggested an occasional audit by the external auditors in this area may be appropriate.

6. President's Report

Mr. Nash reported on NWMO's activities since the last Board meeting;

- NWMO is in a very busy period as staff work to prepare for the first tranche of reporting on Phase 1 assessments, and narrowing down of communities in the APM site selection process;
- a number of key staff are working to support the work on the Joint Review Panel hearings for the OPG low and intermediate level waste deep geological repository (L&ILW DGR);
- engagement activities continue with many Aboriginal engagement activities, a recent meeting of the Council of Elders, and a meeting with the Ontario Minister of Northern Development and Mines;
- internally NWMO is planning for Phase 2 of Step 3 in the siting process;
- in Canada, AECL continues its restructuring and discussions on cooperation among waste owners continue; and
- internationally, the U.K. has re-started its site selection process and France continues to hold a public debate on its DGR at Bure.

Directors discussed the changes recently made to the U.K. siting process. A Director also asked a question about AECL's research reactor fuel and whether it would need to be re-packaged to be included in the APM DGR. Staff reported that waste acceptance criteria had been provided and reviewed by all used fuel owners.

7. Update on APM Siting Process

Ms. Shaver provided the Board with an update on the work underway in the 21 communities engaged in the APM siting process. She reported on the finalization of Phase 1 assessment reports for the first eight communities. Prior to the end of 2013, the NWMO will be publishing the eight assessment reports. An additional twelve preliminary assessments are underway and are expected to be completed in 2014. Findings from Phase 1 assessments will be guiding NWMO's narrowing down process by identifying those communities with strong potential to be suitable and that warrant further study.

Ms. Shaver discussed the focus of the work planned for the next phase of the siting process - Phase 2 of Step 3. The focus of Phase 2 preliminary assessments will be the

initiation of field studies and expanded engagement in communities, with Aboriginal People and the broader region. This work will be focused on the smaller number of communities identified through Phase 1 assessments as having strong potential to be suitable. Phase 2 assessments will address safety and community well-being through multi-disciplinary work, including work with local Elders to understand appropriate interweaving of local Aboriginal Traditional Knowledge. This multi-year program of work is currently planned for 2014 through the end of 2017. The overall objective of Phase 2 is to advance technical and social studies to the point where a decision can be made to narrow down to one, or potentially two, locations in informed willing communities to move forward into detailed site characterization. Ongoing stocktaking will consider whether further evaluations may be required prior to advancing to detailed site characterization.

The Board received a proposed framework for Phase 2 capacity building which outlined proposed funding amounts and eligible activities. Bob Watts reviewed the integrated approach taken to developing the capacity building program for communities engaged in Phase 2. He discussed a set of partnership principles to ensure learning opportunities for initiating communities, surrounding communities and Aboriginal people. Principles for this program include equity, transparency, accountability, to ensure communities are not out of pocket or constrained, and providing space for communities to reflect on their involvement. Ms Shaver reported on the Siting Committee's discussion of this program, during which members emphasized the importance of embedding NWMO's principles in this work.

Directors discussed capacity building for Phase 2, including the following:

- the level of funding proposed for eligible activities, recognition that community's needs may vary, and recognition that the program design will evolve as experience is gained in delivering Phase 2 assessments and engagement; and
- broader discussion about business planning assumptions through to the construction of the APM deep geological repository.

8. Review of Draft 2014-2018 Business Plan

Ken Nash provided an overview of the draft 2014-2018 Business Plan. He noted that progress has been made over the past year on site selection. A large part of the APM 5-year business plan comprises two multi-year projects: Step 3 Phase 2 site selection and repository engineered barrier systems, design optimization and proof testing. When planning is complete next year, it will be possible to track each project on a cost and schedule basis over several years to completion against defined project objectives.

Kathryn Shaver reviewed the plan for siting, discussing the objectives of the Step 3 Phase 2 project which is to build understanding of site suitability through technical and social studies and engagement to support a future decision on narrowing down to one, or potentially two, locations for detailed site characterization.

Derek Wilson reviewed NWMO's plans to develop APM generic repository designs and proof testing plans for the Mark I and Mark II design concepts for crystalline and sedimentary geospheres. The primary objective was to prove the Mark II design by 2018 to a level that would meet the regulatory requirements for a construction licence and would provide NWMO confidence that the design could be successfully operationalized.

Derek Wilson also reviewed NWMO's business planning assumptions for the provision of services for both the regulatory approvals and design and construction phases in support of OPG's low and intermediate level DGR.

Directors discussed a number of issues related to business planning in all three areas:

- Discussion focussed on the challenges of budgeting and creating a schedule for financial planning purposes when APM is flexible in the pace and manner of implementation through a phased decision-making process;
- Directors wanted to ensure a good understanding of the projected overall cost of the project leading up to getting a construction licence;
- Directors agreed with continued reference to an in-service date no earlier than 2035, for financial planning purposes;
- Directors asked questions about the technological advances in container technology since the development of the original Swedish and Finnish designs and what international interest has there been in the work NWMO is doing on container design; and
- Directors discussed the decision that will be needed on proceeding with the Mark II container development plan. Mr. Nash stated that the Board would be given the option at the end of 2014 to decide whether to invest in the proof testing of the Mark II system with the potential of major cost savings or rely on the largely proven Mark I design. At that time, the Board would have the benefit of an international peer review, a review by CNSC, a full analysis of the cost of proof testing potential cost savings and an assessment of risk. In the short term, Mr. Nash suggested the Board discuss the feasibility of Mark II containers with the Chair of the ITRG group when he presents to the Board in November.

Directors reviewed the proposed budgets and asked questions about changes in the 2015-2017 budget figures.

9. Draft 2014 Performance Measures

Michael Hung discussed the draft 2014 performance measures which are used to both track performance throughout the year and assess performance for management group staff. Consistent with 2013, a small number of key measures were proposed with weightings.

Michael Hung reported that the draft performance measures were discussed at the Audit, Finance & Risk and Human Resources and Compensation Committee meetings the previous day. Comments from both of those Committees will be incorporated in the draft objectives to be proposed to the Board for approval at its December meeting. The performance measures for the work on OPG's L&ILW DGR have been submitted to OPG for review.

10. Business Risk

Michael Hung reviewed the key business risks for APM and the regulatory approvals and design and construction phases of the OPG L&ILW DGR. It was reported that based on suggestions from the AFR Committee, Board and the Advisory Council, a few amendments were made to the structure of the report.

Directors discussed the change in risk levels in one of items.

11. Five Year Review of Lifecycle Cost Estimate for APM

Ken Nash reviewed the plan and timeline for the next update of the lifecycle estimate for APM. Some of the key considerations of the cost estimate were tabled with the Board for discussion.

The overall objective was to update the APM cost estimate for financial planning purposes by 2016. Mr. Nash addressed some of the earlier board questions about possible in service dates, contingencies and the difference between estimate for the purpose of long-term financial planning and estimates for project implementation. Work will continue to establish two new reference designs, one in crystalline and one in sedimentary rock.

12. Update on APM Technical Program

Chris Hatton provided an update on the APM Technical program. He discussed the regulatory interface and pre-project review with the CNSC. The CNSC will provide its review in early 2014. Work continued on the preparation of a 5th case study postclosure safety assessment of a conceptual APM repository in sedimentary rock which is on track to be submitted to the CNSC by the end of the year.

Mr. Hatton discussed the repository design development work and possible savings related to the Mark 2 design. He also reported that NWMO upgraded the certificate from the CNSC for the used fuel transportation package from the 1979 standard that it was originally licensed under.

A Director asked management to bring the sample container Mr. Hatton referred to in his report to an upcoming meeting. (*)

13. Update on RA Phase of OPG L&ILW DGR

Derek Wilson and Pat Moran reviewed the Joint Review Panel public hearings on the OPG L&ILW DGR. It was reported that the panel has focussed on technical questions, the concept of a willing host community and how public engagement processes were carried out. There have also been discussions around decommissioning waste and transportation.

14. Update on D&C Phase of OPG L&ILW DGR

Derek Wilson updated the Board on work in the design and construction phase of the OPG L&ILW DGR. He updated the Board on health and safety statistics, field investigations, detailed engineering, quality management and the financial status of the project year to date.

15. Report from the Advisory Council

David Crombie provided a report to the Board on the Advisory Council's recent two-day meeting held on September 16 and 17. At the meeting:

- Council members reported on their attendance at the August 27-28 Council of Elders meeting and reported that they were very impressed with the new Council of

Elders and found it to be a very productive meeting. Council also discussed its participation at the Council of Elders meetings and possible opportunities for other exchanges.

- Mr. Crombie reported on his attendance at a recent meeting with the mayors of the first eight communities to complete the preliminary assessments and reported that the mayors commented that they were very impressed with the way the NWMO process has gone and felt that it was a fair process and that their communities had been treated well.
- The focus of the Council meetings was on the status of the first eight preliminary assessments, initial recommendations and planning for next steps in the siting process. The Council did not express any concerns on how the process was proceeding.
- Council also reviewed management's proposal for recognizing a community's contribution to the siting process to date. Council members recommended that communities establish reserve funds to manage the recognition and discussed management's recommendation for an appropriate level of recognition.
- Council also reviewed NWMO's communications plan for releasing the assessment findings and provided advice and suggestions on the plan.

Council also discussed the following:

- an update from the President outlining recent NWMO activities and developments in nuclear waste management nationally and internationally;
- management updates on engagement, risk, the external landscape, the APM technical program and NWMO's work on the OPG L&ILW DGR;
- NWMO's draft 2014-2018 business plan;
- how NWMO's Aboriginal Policy will be implemented in Step 3, Phase 2 of the siting process; and
- NWMO's proposed framework for the next phase of resource programs for capacity building for communities and Aboriginal people.

A Director who also attended the recent Council of Elders meeting echoed the Advisory Council's comments on it being a very productive meeting. Directors discussed the Advisory Council's interaction with the Council of Elders.

16. Report from the Siting Committee (in camera)

Ron Jamieson provided his report to the Board on the September 25, 2013 Siting Committee meeting in camera.

17. Legal / Corporate Secretary Report

Pat Moran provided the Board with an information note on the US Senate bill regarding the long term management of used fuel. The bill proposes the establishment of a new nuclear waste management organization, a consent-based siting process and the building of a deep geological repository.

18. Upcoming Meetings

The next meeting of the Board will be held on:

Wednesday, December 4
9:00 am – 3:00 pm EST

Directors agreed the June 2014 meetings would take place in Fredericton, New Brunswick.

19. In Camera Session

Board Members agreed that an in camera session was not required.

Conclusion of Meeting

There being no other business, the Chair declared the meeting adjourned at 2:25 p.m.

(*) Denotes actions to be taken.



Pat Moran
Corporate Secretary



Dr. Gary Kugler
Chair