

NUCLEAR WASTE MANAGEMENT ORGANIZATION (NWMO)

**BOARD OF DIRECTORS
MEETING**

December 3, 2015

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 Siting Committee (*in camera*)
6. Report from the Audit, Finance & Risk Committee
7. Update on the OPG L&ILW DGR Project
8. Report from the Advisory Council Meeting
9. President's Report
10. Update on APM Five-Year Review of Lifecycle Cost Estimate
11. 2016-2020 Business Plan
12. Transportation of Used Fuel to a DGR
13. CNSC Update (*in camera*)
14. Update on Alternative Fuel Cycles (*in camera*)
15. Progress Against Proof Testing Project Execution Plan
16. Geoscience Presentation
17. In Camera Session
18. Next Meeting of the Board

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 December 3, 2015
commencing at 9:00 a.m. EST

Present

Pierre Charlebois	Chair
Wayne Robbins	Vice Chair
Ron Jamieson	Director
Ken Nash	Director, President & CEO
Josée Pilon	Director
Deborah Poff	Director
Ian Ross	Director
Darren Murphy	Director

Staff in attendance:

Mahrez Ben Belfadhel	Director, APM Geoscience (Item 16)
Jo-Ann Facella	Director, Social Research & Dialogue (Item 12)
Paul Gierszewski	Director, Safety & Licensing (except items 1-4, 17)
Marni Halter	Senior Counsel (except items 1-4, 17)
Chris Hatton	Director, APM Repository Design Development (except items 1-4, 17)
Michael Hung	CFO (except items 1-4, 17)
Elena Mantagaris	Director, Government & External Relations (Item 12)
Gillian Morris	Assistant Board Secretary (except items 4, 17)
Kathryn Shaver	VP, APM Engagement & Site Selection (except items 1-4, 17)
Jennifer Spragge	VP, Human Resources (except item 17)
Derek Wilson	VP, Design & Construction (except items 1-4, 17)
Bob Watts	Associate Vice President, Aboriginal Relations (except items 1-4, 17)

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 Chair noted the departure of Beth Summers from the Board and indicated that Ontario Power Generation is planning to appoint another Director to replace Ms. Summers.

2. Minutes of Previous Meeting

The minutes and in camera minutes of the meeting of the Board of Directors held on September 24, 2015 copies having been sent to each member of the Board, were approved.

3. Business Arising from the Previous Minutes

Mr. Nash reviewed the actions from the last meeting. Board members were asked to confirm that the meeting held with the Advisory Council was worthwhile and Directors agreed it was an excellent opportunity for an exchange of views and should be convened again in 2016.

4. Report from the Human Resources & Compensation Committee (In Camera)

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

5. Report from the Siting Committee

Mr. Jamieson reported highlights of the December 2 meeting of the Siting Committee:

- The Committee received a presentation from Dr. Peter Kaiser, the Chair of the Geoscientific Review Group. Dr. Kaiser reported to the Committee that the GRG group's view was that NWMO's geoscience team had undertaken quality work, applying practices that meet or exceed best international practice. He noted that the GRG regularly gives advice on process improvements and the Committee was pleased with how their guidance had been dispositioned. Mr. Jamieson reported that the Siting Committee (with all Directors in attendance), found the opportunity to hear from the Chair of the GRG valuable and a validation of NWMO's geoscience work;
- The Committee received an update on the status of the last community completing a Phase 1 preliminary assessment, and a detailed report on Phase 2 preliminary assessment work in each study area;
- The Committee reviewed the progress against the budget and milestones set out in the Siting Project Execution Plan (PEP);
- The Committee reviewed the proposed 2016 Siting Performance Measures;
- The Committee discussed Aboriginal and local procurement policies; and
- Standing reports on items including engagement and the external landscape were also tabled with the Committee.

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

The Chair of the AFR Committee reported on the Committee's discussions at the December 2, 2015 Committee meeting.

Mr. Ross reported that NWMO's actuary was engaged to assess NWMO's pension governance and concluded NWMO's governance was in line with industry best practice. Updates to the Pension Management Committee (PMC) Terms of Reference were proposed for Board approval in response to a change of personnel.

IT IS HEREBY RESOLVED THAT:

On the recommendation of the Audit, Finance & Risk Committee, the Board approves the proposed changes to the Pension Management Committee and the revised Terms of Reference.

The motion was made, seconded and unanimously passed.

Mr. Ross also discussed the Committee's review of the NWMO Statement of Investment Policies and Procedures (SIPP). He reported that the NWMO's actuary was also commissioned to review and recommend changes to the SIPP.

IT IS HEREBY RESOLVED THAT:

On the recommendation of the Audit, Finance & Risk Committee, the Board approves the proposed changes to the Statement of Investment Policies and Procedures as recommended by the external investment advisor.

The motion was made, seconded and unanimously passed.

It was also reported that the Committee considered a revised banking resolution to accommodate the change in senior staff. Mr. Ross brought forth the revised banking resolution for Board approval.

IT IS HEREBY RESOLVED THAT:

On the recommendation of the Audit, Finance & Risk Committee, the Board approves the Corporate Banking Resolution.

The motion was made, seconded and unanimously passed

Mr. Ross reported that the Committee had an extensive review and discussion on the 2016-2020 Business Plan and will recommend approval of the Plan under agenda item eleven.

- Other items discussed by the Committee included:
 - Updating employee expense standards;
 - an update on the five-year review of the APM Lifecycle Cost Estimate;
 - a report from the Pension Management Committee; and
 - other regular management reports.

7. Update on the OPG Low and Intermediate Level Waste (L&ILW) DGR Project

Derek Wilson provided the Board with an update on ongoing work in the L&ILW DGR Project. It was noted that the November L&ILW DGR Committee meeting had been deferred until 2016 as a government decision was delayed until March 2016.

A Director asked if Ontario Power Generation had provided any change in direction to NWMO's work on the project. Mr. Wilson noted that no changes to work would be made until directed by OPG.

8. Report from the Advisory Council Meeting

David Crombie delivered his report on the highlights of the Council's December 2 meeting, which included the following:

- Council members received a thorough briefing on recent activities in regional siting areas and a report on NWMO's progress against the Siting Project Execution Plan;
- A presentation was made to Council by Dr. Peter Kaiser, Chair of the Geoscience Review Group on the NWMO's work;
- At Council's request, members received a presentation on workplans associated with transportation assessments during the Phase 2 siting work and NWMO's plan to include in site assessments the potential for having a safe, secure and socially acceptable transport plan to the proposed site;
- Council reviewed and provided feedback on NWMO's draft Indigenous Knowledge Policy; and
- Council also met in camera to prepare for its annual meeting with the Board of Directors and its approach to Triennial Report Preparation.

Mr. Crombie referenced the Council's meeting with the Board of Directors for a review of trends in the external landscape and key areas of advice it would like to provide to NWMO in 2016. Mr. Crombie reported that key areas discussed by the Board and Council included: NWMO's social and ethical framework; engagement; environmental policies and transportation-related matters.

The Board noted its appreciation for the opportunity to meet with Advisory Council and found the discussion to be very useful.

9. President's Report

Mr. Nash reported on the following key developments and activities since the June Board meeting:

- NWMO is finalizing the five-year update to the lifecycle cost estimate which will be brought to the Board in February 2016 for approval;
- Work has been completed on the 2016-2020 Business plan which is consistent with lifecycle reference plan and Board approval for the Plan will be sought today. It was noted that NWMO's expenditures grow as the nature of the work progresses;
- Staffing levels increase with a growing number of staff employed directly in the siting areas;
- Work continues with Canadian Nuclear Safety Commission (CNSC) to provide an overview of NWMO's engineered barrier design;
- Site selection continues to progress well with all Phase 1 assessments complete;
- Discussions on building capacity in communities in the near term continue;
- A number of changes in the Canadian nuclear industry were recently announced in relation to refurbishing reactors;
- A recent meeting was held with the new President of OPG and meetings are upcoming with the CEO's of the other Member organizations;
- Internationally, Posiva in Finland received world's first construction license for a used fuel DGR;
- Other developments in Sweden, the U.S.A., and France were highlighted.

- NWMO continues to make arrangements to host visits of other international waste management organizations; and
- NWMO now has three international partners on the copper coating work.

10. Update on Five-Year Review of APM Lifecycle Cost Estimate

Derek Wilson reviewed the proposed lifecycle estimate for agreement. The Board will be asked for final approval of the estimate at the February 2016 Board meeting. Mr. Wilson reported that there were no changes since the Board reviewed the estimate at the June meeting. Board approval will be sought for the cost estimate in the February 2016 meeting.

Mr. Nash asked the Board to indicate any significant concerns with the cost estimate as the information will be used for a number of purposes. The Board did not indicate any concerns with the cost estimate and suggested NWMO also confirm the same with relevant stakeholders. Mr. Wilson reported that there had been a broad stakeholder review and he had a good level of comfort that there were no serious outstanding concerns.

11. 2016-2020 Business Plan

The final 2016-2020 Draft Business Plan was shared with the Board. Management reported that the business plan for APM implementation is consistent with the Proof Testing and Phase 2 Site Selection Project Execution Plans (PEPs) approved by the Board in June, 2015. Mr. Hung reported that the Audit, Finance & Risk (AFR) Committee also reviewed the business plan and are recommending it to the Board for approval.

Directors discussed the level of contingency required in the plan based on historical underspending. Directors indicated that they did not wish to impede progress on the work plan in any way, but encouraged management to review the contingency levels, adjust as appropriate, and report back to the Board in February. A suggestion was made that any adjustments made be done sooner than February as Members' funding levels for 2016 would be based on the overall budget amount. (*)

IT IS HEREBY RESOLVED THAT:

On the recommendation of the Audit, Finance & Risk Committee, the Board approves the 2016-2020 Business Plan as proposed.

The motion was made, seconded and unanimously passed.

12. Transportation of Used Fuel to a DGR

The Board was provided with an update on progress to develop a plan to safely transport used fuel to a DGR as part of the Phase 2 Site Selection program.

Management discussed the transportation objective which included sub-objectives related to technical progress and social acceptance. It was reported that a transportation discussion document is scheduled to be released in 2016. Progress in

the transportation program since 2014 and the future work plan were reviewed with the Board.

Directors discussed the issue of rail safety. Management noted that the safety of transportation is not determined by the method of transport, but on the transportation package itself. With respect to reporting on progress on the technical side of transportation to the Board, it was agreed that transportation technical progress would be integrated with the APM technical report.

13. Canadian Nuclear Safety Commission (CNSC) Update (In Camera)

The Board was provided with an update on work with the CNSC.

14. Update on Alternative Fuel Cycles (In Camera)

The Board was provided with an update, since the September meeting, on discussions related to alternative fuel cycles.

15. Progress Against Proof Testing / Project Execution Plan

Management reported on work in the APM engineered barrier and proof testing areas since the last Board meeting. Highlights of the work in the last period included: producing and testing the first full-size bentonite buffer block; progress on fabrication of the slip-skid mechanism and completion of the fabrication of the bentonite gapfill trial room mock-ups. On the used fuel container development it was reported that work continues to refine the copper coating work and it was reported that an additional international participant had expressed interest to join the program.

16. Geoscience Presentation

As an educational initiative requested by the Board, Mahrez Ben Belfadhel provided the Board with an informative presentation on Geoscience.

Directors discussed how the geological integrity of the repository will be ensured and the degree to which seismicity factors are considered.

17. In Camera Session

Board Members held an in camera session.

18. Next Meeting of the Board

- Wednesday, February 17, 2016
L&ILW DGR Oversight Committee meeting
- Thursday, February 18, 2016
AFR, HRC, Siting Committee meetings
- Friday, February 19, 2016
Board of Directors meeting

19. Conclusion of Meeting

There being no other business, the Chair declared the meeting adjourned at 2:15 pm.

* Denotes actions to be taken.



Pierre Charlebois
Chair