

**NUCLEAR WASTE MANAGEMENT ORGANIZATION (NWMO)**

**BOARD OF DIRECTORS  
MEETING**

**November 29, 2012**

**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
  6. Report from the Audit, Finance & Risk Committee
  7. Report on the L&ILW DGR Oversight Committee Tour to Shaft-Sinking Operations
  8. Report from the Advisory Council
  9. President's Report
  10. Report from the Independent Technical Review Group (ITRG)
  11. Update on APM Siting Process
  12. *In Camera* Session
  13. 2013-2017 Business Plan
  14. APM Technical Report
  15. Legal / Corporate Secretary Report
  16. Next Meeting of the Board
  17. *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 November 29, 2012**  
**commencing at 9:00 a.m. EST**

**Present**

Gary Kugler	Director, Chair
Pierre Charlebois	Director
Donn Hanbidge	Director
Ron Jamieson	Director (Present for Items 1-5)
Darren Murphy	Director (Present for Items 1-14)
Ken Nash	Director, President & CEO
Deborah Poff	Director
Ian Ross	Director
Josée Pilon	Director

**Staff in attendance:**

Michael Hung	Chief Financial Officer (except items 1-4)
Chris Hatton	Director, APM Repository Design Development (except items 1-4)
Mark Jenson	Director, DGR Geoscience & Research (Item 10)
Frank King	VP and Chief Engineer (except items 1-4)
Elena Mantagaris	Director, Government & External Relations (except items 1-4)
Pat Moran	General Counsel and Corporate Secretary
Gillian Morris	Assistant Board Secretary (except item 4)
Sean O'Dwyer	VP, Human Resources (except items 1-4)
Pat Patton	Director, Aboriginal Relations (Items 11-12 only)
Sean Russell	Director, Repository Research & Development (except items 1-4)
Kathryn Shaver	VP, APM Site Selection and Engagement (except items 1-4)
Derek Wilson	VP, L&ILW DGR Design & Construction (except items 1-4)

**Guests:**

Dr. Alan Hooper	Chair, Independent Technical Review Group (Item 10)
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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 November 29, 2012 meeting was approved.

2. Minutes of Previous Meeting

The minutes of the meeting of the Board of Directors held on September 27, 2012, copies having been sent to each member of the Board, were approved with two amendments.

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 Siting Committee

Mr. Jamieson provided a report to the Board on the November 27<sup>th</sup>, 2012 Siting Committee meeting. He reported that the Siting Committee reviewed and discussed the following:

- a status update on communities involved in the various stages of the site selection process;
- an in-depth presentation on the status of NWMO's preliminary assessments reviewing work underway in communities. The Committee was also provided with information on the continuing workplan for the preliminary assessments for 2013;
- activities underway to build relationships in support of siting and manage risks in the external landscape;
- Committee members were appreciative of the extensive media analysis and management's response to their request for detail by regions; and
- the revised Siting performance measures and objectives and agreed that their comments on an earlier draft had been taken into consideration in the latest version.

The Committee also discussed safety measures in place for staff while visiting remote communities, general staff well-being, and how staff will cope with traveling in winter weather. Management reported that staff will make arrangements for conference call meetings wherever possible during the winter months. Committee members supported

staff flying in and out of communities when necessary and want to ensure staff avoid driving in dangerous conditions.

Board members supported the Siting Committee's discussion on staff safety while traveling and asked management to ensure that contractors also abide by the safety rules.

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

Mr. Ross provided a report from the Audit, Finance and Risk Committee meeting held on November 12, 2012. The Committee discussed the following items:

- the draft 2013-2017 Business Plan. It was reported that there were no significant changes since September and that the Committee was recommending its approval;
- draft 2013 Performance Objectives and Measures, reviewing the changes since September 2012; and
- the pension status report, reviewing the investment manager's performance. The transfer of the NWMO pension assets from OPG was also discussed and Board approval was sought for the transfer:

**IT IS HEREBY RESOLVED THAT:**

The transfer of the agreed amount into the NWMO pension plan fund from the OPG pension plan fund is approved.

The motion was made, seconded and unanimously passed.

The Committee was also provided with updates on:

- LLM Work Program Update;
- Regular management reports;
- NWMO's 2012 performance report and score; and
- the expenses of the top 5 spenders in the executive ranks and found everything to be reasonable and in order.

A Director asked questions about the ONFA review process. Directors discussed the budgeting process and the challenges NWMO may face in meeting its budgeting targets.

7. Report from the L&ILW DGR Oversight Committee Meeting

Dr. Gary Kugler, the Chair of the Low and Intermediate Level Waste DGR (L&ILW DGR) Oversight Committee reported on the November 12<sup>th</sup> Committee Meeting. The Committee discussed the following:

- a briefing on the progress of the Regulatory Review Phase of work and NWMO's submissions and presentations to the Joint Review Panel since its appointment in January;
- a progress report on the Detailed Design Phase of work including work that was done in the 2012 field investigations program. The program was successful and

finished below budget and ahead of schedule with no reportable health, safety or environmental events;

- the future contracting plan for the OPG L&ILW DGR; and
- the performance objectives for the OPG L&ILW DGR project for 2013.

Dr. Kugler proposed a change to the Committee Charter to reflect current practices:

**IT IS HEREBY RESOLVED THAT:**

The L&ILW DGR Oversight Committee recommends the Committee Charter be changed, under Section III. Operations: the item to read that the Committee will meet at least "two times a year" rather than "three times a year".

The motion was made, seconded and unanimously passed.

8. Report from the Advisory Council

On behalf of Mr. David Crombie, Chair of the Advisory Council, Pat Moran reported on the November 28, 2012 Advisory Council meeting. At Council's request, the November meeting was focussed on the assessment and decision-making processes to support future identification of communities eligible to proceed to the field work phase.

Council discussed the following items:

- an update from the President on recent activities in all programs;
- an update on the APM Site Selection process;
- several Council members attended the second meeting of the new Council of Elders and supported the appointment of Donna Augustine as co-chair of the Council of Elders;
- staff made presentations on the assessment process and Advisory Council members had an in-depth discussion on all areas of the assessments;
- the 2013 workplan for preliminary assessments was reviewed with Council;
- Dr. Alan Hooper provided a presentation on the annual report from the Independent Technical Review Group; and
- Council agreed to hold the next meeting by end of January 2013 in order to keep the discussions advancing on the assessment process.

Mr. Moran reported that several council members attended the ICGR conference and were very impressed with the program content, and NWMO's program delivery. Council members noted there was great value for members of communities in the siting process to attend the ICGR and for NWMO to demonstrate its openness by also inviting NGOs to the conference.

Mr. Nash noted that the Advisory Council was very engaged in the discussion on the community assessment process, how the assessments will be used in the narrowing down process and how Aboriginal views will be incorporated.

9. President's Report

Mr. Nash updated the Board on developments since the last Board meeting, which included:

- a recent Council of Elders meeting with new Co-Chairs Laurence Joseph and Donna Augustine;
- a meeting with the Minister of Transportation in Manitoba;
- progress in the site selection process with additional communities moving into Step 3 of the process;
- work on the technical program; specifically that NWMO is now ready to submit the 4<sup>th</sup> case study for crystalline rock repository design and safety case pre-project review to the Canadian Nuclear Safety Commission, incorporating ITRG comments;
- work on transportation continues with the report on public radiological exposure being posted on the NWMO website, and the new transportation brochure being published;
- the L&ILW DGR joint review panel process continues; and
- the International Conference on Geological Repositories was very successful.

Board members discussed the questions that SKB has received from the Swedish regulator. Directors also discussed NWMO's upcoming meeting with OPG and the Mayor of Sarnia.

10. Report from the Chair of the Independent Technical Review Group (ITRG)

Ken Nash introduced Dr. Alan Hooper, the Chair of the Independent Technical Review Group. Mr. Nash explained new terminology being used, referencing container designs Mark 1 and Mark 2.

Dr. Alan Hooper reported on the findings of the ITRG concerning the APM technical program. He reported that previous recommendations made by the ITRG have either been implemented or their implementation is underway, although in some cases the ITRG has emphasized where more work may be required. Dr. Hooper reported that the scientific research that has been carried out to date, or that is planned, will provide strong support for what is recognized by the NWMO to be an ambitious and robust program for siting an APM facility.

Dr. Hooper reported that the ITRG believes that for the current stage of the program, considerable but appropriate attention is being given to optimized design solutions for the transport of used fuel to the repository, its encapsulation in repository containers and the emplacement of these containers as part of the overall engineered barrier system in the repository. The ITRG considers that the planned activities in the engineering design area of the APM Technical Program may well lead to improvements in design solutions, but it questions whether sufficient scientific and technical underpinning could be developed for such solutions on the timescales implied by the current overall planning assumptions.

11. APM Site Selection Process: Progress Update

Ken Nash reviewed the status of APM Site Selection, including a report on the status of the communities in the process. His report noted:

- the expressions of interest phase was suspended on September 30<sup>th</sup> 2012;
- many communities continue to be engaged, with some in Saskatchewan and some in Ontario; and
- a number of communities have moved into the preliminary assessments phase.

Mr. Nash reviewed some of the engagement activities in the communities involved in the siting process. He also noted that NWMO encouraged candidate site community representatives and representatives from Aboriginal and municipal organizations to attend the International Conference on Geological Repositories (ICGR 2012).

Directors discussed how communities might exit the process if they were not proceeding further in the assessments.

12. In Camera Session

Directors held an in camera session.

13. 2013 – 2017 Business Plan

Mr. Nash reviewed the costs incurred in developing used fuel disposal technology prior to the technical program being transferred to NWMO, the costs incurred by NWMO over the first 10 years of operation, and the projected expenditure by the NWMO on APM over the next 10 years. Mr. Nash presented the final 2013-2017 Business Plan and the Board reviewed the scenarios assumed in the plan regarding siting.

Michael Hung identified a few minor changes in the plan that had been made since the September Board meeting.

Directors also discussed matters related to the pension asset transfer from OPG and allocation of staff between the L&ILW DGR versus APM.

**IT IS HEREBY RESOLVED THAT:**

On the recommendation of the Audit, Finance & Risk Committee, the Board approves the 2013-2017 Business Plan as proposed

The motion was made, seconded and unanimously passed.

14. APM Technical Program Update

Sean Russell discussed the 4<sup>th</sup> case study postclosure safety assessment of an APM repository in crystalline rock which will be submitted to the Canadian Nuclear Safety Commission (CNSC) for review in December 2012. Mr. Russell reported that analysis is under way on a 5<sup>th</sup> case study, which examines an APM repository in sedimentary rock.

Chris Hatton reviewed the work on the repository design development. He focused specifically on the evolution of the container design and the differences between the Mark 1 design and the Mark 2 designs. Mr. Nash noted that there will be a number of decisions required over the next few years regarding container design and stated that the Board will be consulted on the major decisions in a timely manner.

Directors discussed how the design development will be reflected in future cost estimates.

15. Legal Update

Pat Moran provided a legal update which discussed implications arising from the proroguing of the Ontario legislature and a recent court case related to the duty to consult Aboriginal peoples. Also discussed was a case that related to employer responsibilities and disclosure of misuse of IT equipment.

16. Upcoming Meetings

The next meeting of the Board of Directors is Thursday, February 28, 2013.

17. In Camera Session

The Board met *in camera*.


Conclusion of Meeting

There being no other business, the Chair declared the meeting adjourned at 3:15 p.m.

(\*) Denotes actions to be taken.



Pat Moran  
Corporate Secretary



Dr. Gary Kugler  
Chair