

**NUCLEAR WASTE MANAGEMENT ORGANIZATION (NWMO)**

**BOARD OF DIRECTORS  
MEETING**

**February 19, 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. Report from the Advisory Council Meeting
8. President's Report
9. Strategic Planning Discussion
10. Phase 2 Site Selection Project Planning
11. Progress Against Proof Testing Plan
- ~~12.~~ Update on APM Five-Year Lifecycle Cost Estimate
13. Alternative Approaches to Proof Testing
14. Business Risk
15. Occupational Health and Safety Review Statistics
16. Audit, Assessment Report
17. Path Forward on the Advisory Council (*in camera*)
18. Update on the OPG L&ILW DGR
19. Next Meeting of the Board
20. 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 February 19, 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 (via conference call) |
| Deborah Poff      | Director                       |
| Ian Ross          | Director                       |
| Beth Summers      | Director                       |

Regrets

|               |          |
|---------------|----------|
| Darren Murphy | Director |
|---------------|----------|

Staff in attendance:

|                  |   |
|------------------|---|
| Paul Gierszewski | Director, Safety & Licensing (except items 1-4, 20)                   |
| Paul Hader       | Director, Performance Assurance (item 16)                             |
| Chris Hatton     | Director, APM Repository Design Development (except items 1-4, 20)    |
| Michael Hung     | CFO (except items 1-4, 20)  |
| Peter Keech      | Senior Corrosion & Coatings Scientist/Engineer (item 11)              |
| Pat Moran        | General Counsel and Corporate Secretary                               |
| Gillian Morris   | Assistant Board Secretary (except item 4, 20)                         |
| Sean Russell     | Director, Environmental Assessment (except items 1-4, 20)             |
| Kathryn Shaver   | VP, APM Engagement & Site Selection (except items 1-4, 20)            |
| Derek Wilson     | VP, Design & Construction (except items 1-4, 20)                      |
| Bob Watts        | Associate Vice President, Aboriginal Relations (except items 1-4, 20) |

Guests:

The Hon. David Crombie Chair, NWMO Advisory Council (item 7 via conference call)

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 proposed changes to the order of the agenda which were adopted.

2. Minutes of Previous Meeting

The minutes of the meetings of the Board of Directors held on November 27, 2014 copies having been sent to each member of the Board, were approved.

3. Business Arising from the Previous Minutes

There was one action from the November meeting which was completed and was discussed in more detail later in the meeting.

4. In Camera Session

The Board convened an *in camera* session to receive the report from the Chair of the Human Resources and Compensation (HRC) Committee on the February 18, 2015 HRC Committee meeting.

5. Report from the Siting Committee (in camera)

The Chair of the Siting Committee reported in camera on the February 18, 2015 meeting of the Siting Committee.

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

The Chair of the AFR Committee reported on the February 18, 2015 meeting.

Mr. Ross reported that the AFR Committee reviewed the 2014 audited financial statements and the auditor's report. Mr. Ross reported that no significant issues were identified by Deloitte during the course of their audit and Deloitte will provide a signed audit report once the financial statements have been approved by the Board. He also reported that the Committee had an opportunity to meet with the Auditor without the presence of staff or management. The AFR Committee recommended that the Board approve the 2014 audited financial statements.

Mr. Ross noted that the auditors commended management and its cooperation in preparation of the financial statements and that there were no constraints on the auditor's access to information.

**IT IS HEREBY RESOLVED THAT:**

On the recommendation of the AFR Committee, the Board approves the 2014 Financial Statements for the NWMO fiscal year ended December 31, 2014, as audited and presented by the external auditors, Deloitte LLP.

The motion was made, seconded and unanimously passed.

Mr. Ross summarized other items reviewed by the AFR Committee at its February meeting, including:

- a review of business risks;
- a report on the status of the pension plan;
- a policy for remuneration of First Nation and Métis Elders;

- an update on the lifecycle liability management work program;
- management reports including financial results, cash flow forecast and the compliance report;
- a regular review of the Chair, President's and top 5 executives' expenses; and
- the results of the annual Committee charter review and evaluation.

The Board discussed preparations for a special meeting of the Audit, Finance & Risk Committee on the APM lifecycle cost estimate. It was agreed in discussion at the February 18<sup>th</sup> AFR Committee meeting that a full day would be required for the Special meeting to allow for fulsome discussion. The draft agenda and material to be provided by management was agreed. Directors asked that NWMO provide material for this meeting as early as possible to allow time for review and preparation.

#### 7. Report from the Advisory Council Meeting

The Chair of the Advisory Council provided a report on the Council's meeting on February 9<sup>th</sup> and 10<sup>th</sup>, 2015. Mr. Crombie reported that the Advisory Council discussed the following:

- an update from the President;
- key developments in Step 3, Phase 1 and 2 of the site selection process;
- key areas of NWMO's business risk;
- an update on NWMO's work on the low and intermediate level waste (L&ILW) DGR;
- standing updates on engagement, the external landscape, the Council of Elders and media reporting;
- Council's draft of its annual letter to the Minister of Natural resources Canada; and
- finalization of Council's tracking matrix of advice provided in 2014.

Mr. Crombie reported that the agenda focused on topics specifically requested by Council which included:

- an opportunity to discuss NWMO's transportation planning;
- a special session on Aboriginal Governance and Indigenous Law presented by Chief Isadore Day of the Serpent River First Nation; and
- a presentation on alternative fuel cycles.

The Council also met on February 10<sup>th</sup> to discuss strategic planning on NWMO's approach to the implementation of APM. Mr. Crombie provided Council's feedback to the Board on its strategic planning discussion.

The Board asked a number of questions related to the comments provided by the Advisory Council on strategic planning.

#### 8. President's Report

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

- Management's workload continues to grow as APM implementation becomes more intense and complex;

- APM site selection Phase 2 project has now been defined in detail and baseline milestones and costing have been established;
- meetings took place with the Province of Ontario, Natural Resources Canada and the Canadian Nuclear Safety Commission;
- NWMO attended and made a presentation on APM and NWMO's mandate at a workshop given by the Candu Owners Group on advanced fuel cycles;
- further progress on agreements with First Nations organizations to work collaboratively was made;
- work on transportation logistics continued;
- internationally, Switzerland and the United Kingdom have partnered with NWMO on copper coating work;
- Switzerland has identified two possible sites for a possible DGR in that country; and
- Finland is making positive steps towards a construction license for its spent fuel DGR.

Directors discussed recent remarks from the CNSC President on the CNSC's role regarding social licence.

9. Strategic Planning Discussion

Mr. Nash introduced the topic and asked the Board for comment and discussion on a number of questions. The Board was also asked to consider the feedback provided by the NWMO Advisory Council on strategic planning topics. The Board provided input and Mr. Nash agreed to consider that input and report back to the Board. (\*)

The Board also discussed the pace of implementation. Directors agreed with management that NWMO is proceeding at an appropriate pace as circumstances permit and is sustaining momentum..

There was agreement that NWMO should enhance communications on the value and attributes of successful APM implementation such as Canadian leadership, etc.

Directors discussed the importance of sustaining community involvement in a lengthy siting process, and supporting capacity building and community well-being.

In considering Member organizations needs, Directors agreed further discussion will take place at the special AFR Committee and the annual Members Meeting in June.

10. Phase 2 Site Selection Project Planning

Kathryn Shaver reviewed with the Board the Phase 2 Siting project's overall objective of selecting a preferred site for detailed site characterization in the APM site selection process. She provided the Board with the baseline project milestones and cost estimates. It was also noted that, at the request of the Siting Committee, the Committee would be reviewing the details of the engagement component of Phase 2 work at its next meeting.

11. Progress Against Proof Testing Plan

Derek Wilson provided the Board with an update on the progress against the proof testing plan reporting the following highlights:

- the first copper coated used fuel container was completed as per the year-end objective;
- APM pre-closure safety and ALARA review of the Mark 1 and Mark 2 designs was completed; and
- the layout of the test facility was further advanced.

Peter Keech, NWMO's Senior Corrosion & Coatings Scientist/Engineer joined the meeting to provide a presentation on NWMO's copper coating program. Directors asked a number of questions with regard to milestones needed to demonstrate proof testing for the safety case; international involvement in the copper coating program; and how and where the expertise would be available to carry out the work.

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

Derek Wilson updated the Board on the plan to re-evaluate the lifecycle cost for APM by 2016. He discussed the planning milestones, the progress, and the next steps including the sensitivity/scenario information to be brought forward to the Special AFRC meeting in June. This would be followed by a limited stakeholder review of financial planning parameters such as level of contingency, economic indices and degree of conservatism, etc. It was noted that the lifecycle cost estimate and associated financial planning parameters would be proposed for final approval of the Board towards year end but the Board will have several opportunities to review in advance of any approval.

13. Alternative Approaches to Proof testing

Derek Wilson provided the Board with additional detail for the proof testing activities developed for the Mark 2 proof testing including: an international comparison; information on expected requirements and expectations; and alternative approaches and the potential risks in modifying the proposed plan.

Directors found the information provided to be a useful analysis and very helpful and would assist Directors in examining the work in the context of the overall project.

14. Business Risk

Michael Hung reviewed the summary of high level risks in both the APM program and NWMO's work on the OPG L&ILW DGR highlighted two key risks which had changed and one which was added as the suggestion of the Advisory Council.

15. Occupational Health & Safety Review and Statistics

Pat Moran reported on NWMO's performance on occupational health and safety and environmental protection in 2014 for the work on the OPG DGR, APM fieldwork and at the head office. He reported that the Board first approved the Occupational Health and Safety Policy on April 12, 2011 and the Environmental Protection Policy on February 16, 2011. It was noted that those policies, along with a suite of supporting procedures

were developed in preparation for the planned commencement of fieldwork by the NWMO at the OPG DGR site in Kincardine. NWMO has since carried out fieldwork at the DGR site in Kincardine and has also carried out public engagement and geological mapping activities as part of the APM siting process. These activities have all been carried out safely.

16. Audit Assessment Report

Paul Hader, Director, Performance Assurance joined the meeting to provide a summary on audit activities provided in accordance with the IIA International Standards for the Professional Practice of Internal Auditing (Standards). He reported that the NWMO established the internal audit process in 2009. Since 2010, the NWMO has prepared an annual audit and assessment plan and has executed internal and contractor audits every year in accordance with the approved plan.

Directors discussed various quality standards that OPG as a nuclear operator may have for Engineering, Procurement and Construction Management (EPCM) providers and implications to NWMO's work on the low and intermediate level DGR and later to APM.

Mr. Hader asked the Board if his summary provided an appropriate level of detail. The Board found the report to be generally suitable with one suggestion to classify non-conformances based on significance in future reports. The Board welcomed Mr. Hader to approach the Board at any time.

17. Path Forward on the Advisory Council – *In camera*

Management discussed the proposed path forward on Advisory Council membership with the Board of Directors.

18. Update on OPG L&ILW DGR

Derek Wilson discussed the timeline for the Joint Review Panel's environmental assessment report on the L&ILW DGR. He reported that spending in this program was below budget on both the design and construction and regulatory approvals phase for 2014 and that all 2014 objectives had been met.

The Chair reported on his meeting with OPG to discuss industry developments on low and intermediate level waste and specifically the role of the industry-led Nuclear Leadership Forum. Representatives from both Hydro-Quebec and NWMO have been asked to participate. Mr. Nash suggested NWMO participate to ensure that NWMO's interests are represented and to be a source of information on topics related to management of Canada's used nuclear fuel.

19. Upcoming Meetings

The next meeting of the Board will be held on:  
Thursday, June 11, 2015  
8:30 am – 2:30 pm EST, Montreal, QC

20. In Camera Session

Board Members held an in camera session.

21. Conclusion of Meeting

There being no other business, the Chair declared the meeting adjourned at 2:50 pm

\* Denotes actions to be taken.

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Pat Moran  
Corporate Secretary



Pierre Charlebois  
Chair

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