

Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held Thursday, October 5, 2006 beginning at 11:00 a.m. in the Public Hearing Room, CNSC Offices, 280 Slater Street, Ottawa, Ontario.

Present:

L.J. Keen, Chair

C.R. Barnes
J. Dosman
A. Graham
M.J. McDill
A. Harvey

M.A. Leblanc, Secretary
P. Bourassa, Recording Secretary
J. Lavoie, General Counsel

CNSC staff advisers were:

B. Howden, E. Langlois, R. Maxwell, I. Grant, R. Stenson and J. Mecke

Other contributors were:

- Atomic Energy of Canada Limited: D. Taylor, B. McGee, P. Tonner and M. Wright
- Hydro-Québec: P. Desbiens
- Low Level Radioactive Waste Management Office: B. Gerestein

Adoption of the Agenda

1. The revised agenda, CMD 06-M47.A, was adopted as presented.

Chair and Secretary

2. The presiding member chaired the meeting of the Commission, assisted by M.A. Leblanc, Secretary and P. Bourassa, Recording Secretary.

Constitution

3. With the notice of meeting, CMD 06-M46, having been properly given and a quorum of Commission Members being present, the meeting was declared to be properly constituted.
4. Since the meeting of the Commission held August 16, 2006, Commission Member Documents CMD 06-M46 to CMD 06-M53 were distributed to the Members. These are further detailed in Appendix A of these minutes.

Minutes of the CNSC Meeting Held August 16, 2006

5. The Members approved the minutes of the Commission Meeting held on August 16, 2006 (reference CMD 06-M48) without change.

Significant Development Report

6. Significant Development Reports (SDR) no. 2006-6 (CMDs 06-M43 and 06-M43.A) and no. 2006-7 (CMDs 06-M49, 06-M49.A and 06-M49.B) were submitted by CNSC staff. The following information was added orally during the meeting.
7. With reference to section 4.1.1 in CMD 06-M43 regarding the restart of the MAPLE 1 reactor at the Atomic Energy of Canada Limited's (AECL) Chalk River Laboratories, the Commission sought further information on the operational status of the reactor.
8. AECL explained that, following an approach-to-critical procedure to remove the reactor from its Guaranteed Shutdown State, the MAPLE 1 reactor achieved criticality and was operated at a relatively steady power level of two kilowatts. The positive coefficient of reactivity (PCR) was not measured at that power level. AECL noted that it has applied to the CNSC for agreement to operate the reactor at a higher power level to perform tests and measure the PCR.

9. CNSC staff stated that it is currently reviewing AECL's application in this regard, and that the reactor would not be operated above two kilowatts until the safety case has been accepted. CNSC staff further stated that it is satisfied that the reactor has remained in a safe state, whether in operation or shut down.
10. CNSC staff noted that it will update the Commission on the progress made with the restart of the MAPLE reactors in the context of the mid-term report to be presented at the next Commission meeting scheduled in December 2006.
11. The Commission expressed the view that this update should include comprehensive background information and project plan to ensure a clear understanding of the next stages associated with the restart of the MAPLE reactors. The Commission also expects an overview of the communication mechanisms between CNSC staff and AECL regarding this project.
12. With reference to section 4.1.2 in CMD 06-M43 and section 4.1.5 in CMD 06-M49 regarding the Molybdenum-99 Production Facility (MPF) at the AECL Chalk River Laboratories, CNSC staff provided background information on the Fissile Solution Storage Tank (FISST), which is part of the MPF, and the on-going investigation regarding the thermocouple contamination. CNSC staff noted that the detected radioisotopes on the contaminated thermocouple indicate a breach of pressure boundary of the thermowell.
13. AECL presented the actions it has undertaken following the discovery of the thermocouple contamination to ensure the safe state of the facility while it continues its investigation of this event.
14. AECL noted that there had been no release of radioactivity from the FISST, apart from the contamination of the thermocouple, nor was any injury incurred as a result. AECL further noted that its leak monitoring capability shows no evidence of leakage from the FISST and that, at this point, all credible evidence indicate that the source of the corrosion originates from outside the tanks. Furthermore, AECL noted that it has taken compensatory measures to preclude the possibility of the FISST material moving up and out of thermowell.
15. The Commission sought further information with respect to the thermocouples and any relevant associated inspection program. AECL responded that the thermocouples were installed at the time

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- the FISST was put in service 20 years ago. AECL noted that the first and last time a thermocouple was changed, in 2005, it showed no indications of degradation. AECL noted that it had planned to change the other thermocouples at a rate of one per year, further noting that this staggered approach to replacing equipment is a common practice for maintenance programs.
16. CNSC staff expressed its satisfaction with AECL's path of investigation, noting that the integrity of tank is still of concern and thus that timeliness is essential to find the root cause and resolve the issue.
 17. AECL confirmed that it was proceeding with its investigation in a timely and safe manner to ensure both an early resolution and the protection of the facility and the workers.
 18. The Commission enquired as to AECL's plan to relocate the material in the tank in the event the FISST can no longer operate. In response, AECL noted that the tank is planned to be emptied and decommissioned in approximately the year 2012. However, this plan could be accelerated if necessary, taking into consideration other decommissioning priorities within the CRL site.
 19. The Commission expressed its interest in following this matter closely and expects updates on this event at a future Commission meeting, as appropriate.
 20. With reference to section 4.1.3 in CMD 06-M43.A regarding a station alert at Hydro-Quebec's Gentilly-2 Nuclear Generating Station (NGS), the Commission enquired if this type of event had occurred before and whether there has been any radiological risks to the workers.
 21. Hydro-Quebec responded that this was a first occurrence, linked to a procedural error that had gone undetected in past similar exercises which are performed on an annual basis. Hydro-Quebec also noted that no radiological releases resulted from this incident.
 22. The Commission moved in-camera (closed session) to discuss a security matter at the Gentilly-2 identified in section 4.1.4 of the SDR and described in CMD 06-M49.A (confidential).

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Status Report on Power Reactors

23. There were no updates to the Status Report on Power Reactors (CMDs 06-M44 and 06-M50).

Status Report on Site Conditions and Progress on the Licensing Process of Waste Management Areas

24. With reference to CMD 06-M52, staff provided its fifth annual status report on site conditions and progress on the licensing of waste management areas owned by the Crown, historic contaminated lands, and the Deloro mine site.
25. At the request of the Commission, CNSC staff provided further information with respect to the inspections and public enquiries that may have occurred over the past five-year exemption period. CNSC staff explained that, as appropriate, it carries out inspections of the sites to measure general radiation fields and take swipes to verify the presence of contamination. CNSC staff also provides, with the cooperation of the Low Level Radioactive Waste Management Office, technical guidance to members of the public who wish to do work, which may include remediation, on their property.
26. With respect to CNSC staff's statement regarding Natural Resources Canada's (NRCan) on-going efforts to establish long-term programs for the sites, the Commission sought an explanation to what appears to be an inordinately long process to arrive at a permanent solution. NRCan was not present to respond at the meeting; however, CNSC staff noted that there is a complexity of stakeholder and government policy interactions that makes it problematic to create a policy or develop a plan to carry out the work immediately. The Low Level Radioactive Waste Management Office concurred with CNSC staff's comments that, although a policy decision remains absent, progress has been made in the management of certain sites, specifically in Northern regions and in the Port Hope, Ontario region.
27. In support of its recommendation to extend the exemption from the licensing of the possession, management and storage of nuclear substances at historic waste sites in Canada for a period of ten years, CNSC staff stated that the sites have remained well managed under the institutional controls described in CMD 06-M52. CNSC staff will continue to monitor safety at the sites by periodic site visits and will continue to work with stakeholders through consultation and outreach activities. Any issues related to the safety

- or environmental performance of the sites would be identified in a timely manner so that appropriate regulatory action could be taken if necessary.
28. Referring to section 11 of the *General Nuclear Safety and Control Regulations* (the conditions under which the Commission may consider such an exemption), staff expressed the view that the exemptions would not pose an unreasonable risk to the environment or the health and safety of persons, pose an unreasonable risk to national security, or result in a failure to achieve conformity with measures of control and international obligations to which Canada has agreed.
 29. CNSC staff also advised the Commission that there is no requirement for a federal environmental assessment for the proposed extension of the exemptions pursuant to the *Canadian Environmental Assessment Act* (CEAA) or the *Mackenzie Valley Resources Management Act* (MVRMA).
 30. The Commission accepts CNSC staff's conclusion that the environmental conditions at the sites continue to pose no unreasonable risk to people or the environment, and that public interest has been minimal.
 31. Based on the information received, the Commission, pursuant to section 7 of the *Nuclear Safety and Control Act* and section 11 of the *General Nuclear Safety and Control Regulations*, accepts the CNSC staff recommendation and decides to exempt the Port Hope (various locations), Toronto (various locations), Sawmill Bay, Bennett Landing, Road to Bennett Field, Bell Rock, and Fort Fitzgerald (various locations) sites from CNSC licensing for the possession, management and storage of nuclear substances until December 31, 2016.
 32. With this decision, the Commission requests that CNSC staff report any significant changes to the current situation to the Commission through a Significant Development Report.
 33. The Commission requests that CNSC staff update the Commission on the unlicensed historic contaminated land sites on a tri-annual basis. The next schedules update would be in 2009.
 34. In conclusion, the Commission expresses its concern over the length of time that it is taking to establish a policy on the long-term management of the historical waste sites. The Commission also expresses the view that it would be advantageous to the handling of

DECISION

the sites if there were both a policy in place and financial commitment to move forward on this matter.

Closure of the Public Meeting

35. The public portion of the meeting closed at 12:35 p.m. The Commission moved in camera to hear a matter relating to prescribed security information.

Revocation of CNSC Order Number 01-1 and Designated Officer Order Number 01-D1

36. The Commission considered, on its own motion, the redetermination of the CNSC Order Number 01-1 and Designated Officer Order Number 01-D1, as presented in CMD 06-M53, in order to revoke these orders at the time the *Regulations Amending the Nuclear Security Regulations* come into force on November 27, 2006. These regulations were made by the Commission at the CNSC meeting of August 16, 2006 and approved by the Governor in Council on August 29, 2006.
37. The Commission concluded that certain additional information was needed before it could revoke the Orders. Therefore, a decision has been postponed until a later date.

Chair

Recording Secretary

Secretary

APPENDIX A

CMD	DATE	File No
06-M46	2006-09-01	(1-3-1-5)
Notice of meeting held on Thursday, October 5, 2006 in Ottawa.		
06-M47	2006-09-22	(1-3-1-5)
Agenda of the meeting of the Canadian Nuclear Safety Commission (CNSC) held in the public hearing room, 14th floor, 280 Slater Street, Ottawa, Ontario, on Thursday, October 5, 2006.		
06-M47.A	2006-06-28	(1-3-1-5)
Updated Agenda of the meeting of the Canadian Nuclear Safety Commission (CNSC) held in the public hearing room, 14th floor, 280 Slater Street, Ottawa, Ontario, on Thursday, October 5, 2006.		
06-M48	2006-06-19	(1-3-1-5)
Approval of minutes of Commission meeting held August 16, 2006.		
06-M43	2006-08-01	(1-3-1-5)
Significant Development Report No. 2006-6 for the period of June 30 to July 31, 2006		
06-M43.A	2006-08-10	(1-3-1-5)
Significant Development Report No. 2006-6 - Station Alert at Gentilly-2 in Bécancour, Québec		
06-M49	2006-09-21	(1-3-1-5)
Significant Development Report No. 2006-7 for the period of August 10 to September 19, 2006		
06-M49.A	2006-09-19	(1-11-27-6)
Significant Development Report No. 2006-7 – Security Incident – Hydro-Québec’s Gentilly-2 Nuclear Generating Station – August 17, 2006 – Contains protected information and is not publicly available		
06-M49.B	2006-09-26	(1-11-40-1)
Significant Development Report No. 2006-7 – Security Incident – Darlington Nuclear Generating Station – August 17, 2006 – Contains protected information and is not publicly available		
06-M44	2006-08-01	(1-3-1-5)
Status Report on Power Reactors for the period of June 14 to August 1, 2006		
06-M50	2006-09-19	(1-3-1-5)
Status Report on Power Reactors for the period of August 2 to September 19, 2006		

06-M52 2006-09-19 (37-16-8-0, 37-16-8-1, 37-16-8-2, 37-16-8-3, 37-16-8-4,
37-24-0-0, 37-0-0-0, 37-30-0-0)
Status Report on Site Conditions and Progress on the Licensing Process of Waste
Management Areas Owned by the Crown, Historic Contaminated Lands, and the Deloro
Mine Site

06-M53 2006-09-26 (20-1-18-8)
Revocation of CNSC Order Number 01-1 and Designated Officer Order Number 01-D1 –
Contains protected information and is not publicly available