

Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held Wednesday, May 14, 2008 beginning at 4:39 p.m. in the Ajax Convention Centre, 550 Beck Crescent, Ajax, Ontario.

Present:

M. Binder, President  
A. Graham  
C.R. Barnes  
M.J. McDill  
A. Harvey  
R. Barriault

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

CNSC staff advisers were:

H. Rabski, R. Ravishankar, P. Elder, G. Lamarre, M. Lord, M. Simard and B. Ecroyd

Other contributors were:

- Atomic Energy of Canada Limited: B. Gerestein
- Cameco Corporation: T. Gitzell, A. Oliver, D. Smith, K. Vektor and A. Thorne
- Ontario Power Generation Inc.: P. Tremblay
- Hydro-Québec: N. Sawyer and P. Desbiens

#### Adoption of the Agenda

1. The revised agenda, CMD 08-M27.A, was adopted as presented.

#### Chair and Secretary

2. The President 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 08-M26, 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 April 2, 2008, Commission Member Documents CMD 08-M26 to CMD 08-M31 were distributed to the Members. These documents are further detailed in Annex A of these minutes.

## Minutes of the CNSC Meeting Held April 2, 2008

5. The Commission Members approved the minutes of the April 2, 2008 Commission Meeting without modifications.

## STATUS REPORTS

### Significant Development Report

6. The Commission considered the Significant Development Report (SDR) no. 2008-4, submitted by CNSC staff as documents CMD 08-M29, CMD 08-M29.A and CMD 08-M29.B.

### *Cameco Corporation - Update on Contaminants Discovered under Uranium Hexafluoride (UF<sub>6</sub>) Plant*

7. With reference to item 4.1.2 of CMD 08-M29.A regarding contaminants discovered under Cameco Corporation's (Cameco) Port Hope uranium conversion facility located in Ontario, CNSC staff provided an update on the status of the on-going remediation activities<sup>1</sup>. CNSC staff stated that it was satisfied with Cameco's timely actions taken to mitigate environmental impacts and prevent recurrence of a similar incident. CNSC staff noted that the UF<sub>6</sub> plant remains shutdown and restart is subject to Cameco's completion of the required corrective actions and specified commissioning activities.
8. Cameco provided an overview of the event and its subsequent and on-going public communication activities. Cameco noted its plan to complete the implementation of its environmental management plan (EMP) and rehabilitation work, and resume operation of the plant by the end of the third quarter of 2008. Cameco stated that improvements made to the plant and to the management and operational practices will provide multiple barriers to enhance the provisions made to protect the environment during operation.
9. Cameco also summarized other remaining activities going forward, including the need to operate additional treatment wells and install permeable reactive barriers to further control the groundwater contamination, as well as begin site-wide soil and groundwater characterization.

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<sup>1</sup> The event was discovered on July 13, 2007 and was reported to the Commission at the September 13 and December 6, 2007 meetings and at the January 9, 2008 meeting.

10. The Commission sought assurances that the remediation work was sufficiently thorough, and that all reasonable efforts to decontaminate the area beyond what is being done on the facility site would be taken to ensure adequate protection of the public and the environment. Cameco noted that the modelling used to determine which additional treatment should be in place is indicating that the on-going pump and treat system is effectively capturing the entire contaminant plume from beneath the UF<sub>6</sub> plant. Cameco further explained that the initial information coming from the on-going comprehensive risk assessment shows that there is no significant risk to the public and the environment. However, Cameco stated that it will determine which, if any, further treatment options will be suitable and effective along the harbour wall from the assessment's conclusions.
11. In response to the Commission's questions regarding the pump and treat system, Cameco noted that this system, which is used to eliminate the migration of contaminants, would most likely remain operational until the plant is decommissioned. Cameco also noted that it was in the process of doubling the evaporation capacity of the system, which was currently effectively treating 20,000 litres a day.
12. The Commission sought more information regarding the excavation and removal of contaminated soil. Cameco noted that it had removed what could be reasonably and safely removed from the building and to the south of the facility, and it was now assessing the areas to the north and east. CNSC staff stated that the soil removal performed to date was satisfactory, and that it is tracking the on-going assessment to complete the site-wide characterization and thus ensure the overall remediation strategy will be adequate.
13. The Commission is satisfied with the remediation work performed to date, taking into consideration that Cameco has committed to complete the remaining six action items within the deadlines specified in CNSC staff's significant development report. The Commission expects CNSC staff to inform the Commission in the event that further developments result in significant deviations from these action items and timelines.
14. The Commission requests a status update from CNSC staff and Cameco once the plant resumes operation, following regulatory approval.

**ACTION**

*Atomic Energy of Canada Limited - Notification of a Fatal Accident at Whiteshell Laboratories*

15. With reference to section 4.1.3 of CMD 08-M29.B regarding a fatal accident at the Atomic Energy of Canada Limited (AECL) Whiteshell Laboratories in Winnipeg, CNSC staff noted that there are on-going investigations, including by Human Resources and Social Development Canada (HRSDC) and the Royal Canadian Mounted Police (RCMP), and that no further information was available at the time of this meeting.
16. The Commission asked whether there would be a coroner's inquest. AECL responded that it did not have any further detail to provide at this time on this tragic event.
17. The Commission expects an update from CNSC staff and AECL, as appropriate, once on-going investigations by the organizations mentioned above are completed.

**ACTION**

*Ontario Power Generation Inc. – Unit 7 Decrease in Gadolinium Concentration while in Over-poisoned Guaranteed Shutdown State*

18. With reference to section 4.1.1 of CMD 08-M29 regarding a decrease in gadolinium in Unit 7 of the Ontario Power Generation Inc. (OPG) Nuclear Generating Station (NGS) Pickering B, CNSC staff explained that gadolinium is a neutron absorber used to ensure a reactor stays shut down. Considering that the cause of this event has yet to be identified, CNSC staff stated that OPG will have to seek approval to restart the unit. Furthermore, considering that this is also a first occurrence in the industry, CNSC staff noted that enhanced monitoring with respect to this issue is in place at all NGS facilities.
19. OPG provided an overview of the event and submitted that there may be a potential link to the moderator chemistry specific to Unit 7. OPG further stated that it will present its findings of the investigation to CNSC staff and will share with the other NGS operators. OPG anticipates that the recovery work will take approximately three months.
20. The Commission asked whether procedures had been followed once the event was discovered and if CNSC staff was satisfied with the actions taken. CNSC staff confirmed that procedures were followed and that appropriate measures had been taken.
21. The Commission requests that CNSC staff provide a status update once it approves the restart of Unit 7.

**ACTION**

### Status Report on Power Reactors

22. With reference to CMD 08-M31 regarding the status report on power reactors, CNSC staff provided an update since the information presented in the report was submitted on April 29, 2008.
23. Regarding Bruce B NGS, CNSC staff stated that the planned outage started on May 1, 2008, and not May 3<sup>rd</sup> as was reported in CMD 08-M31.
24. Regarding Darlington NGS, CNSC staff reported that OPG manually tripped the Unit 2 reactor following an event and the unit was restarted two days later, on April 30.
25. Regarding Pickering A NGS, CNSC staff reported that Unit 1 is in a guaranteed shutdown state since May 5, following fuelling problems.
26. Regarding Pickering B NGS, CNSC staff reported that Units 5 and 6 are operating at high power, Unit 7 is in a forced outage due to the gadolinium issue, and Unit 8 is in a forced outage due to a steam leak on the conventional side of the facility.
27. Regarding Gentilly-2 NGS, CNSC staff reported that, while the reactor was in a planned outage, the fuelling machine came in to contact with an incorrectly stationed elevating work platform. This event resulted in a small oil leak, with no releases of radiation to the workers or the public.
28. Hydro-Quebec reported that the equipment was repaired manually and the fuelling machine was then able to safely unload the used fuel. Hydro-Quebec noted that a more detailed report on the event would be submitted to CNSC staff in the weeks to come.
29. In response to the Commission's enquiry, Hydro-Quebec confirmed that no nuclear substances have or could have leaked as a result of this incident.

## DECISION ITEM

### Regulatory Document RD-353, *Testing the Implementation of Emergency Measures*

30. With reference to CMD 08-M30 regarding regulatory document RD-353 submitted for publication, CNSC staff presented the final draft of this regulatory document for the Commission's consideration. CNSC staff noted that this document serves to clarify and document the CNSC expectations in the conduct of emergency exercises at the Class I as well as Uranium Mines and Mill facilities. CNSC staff further noted that these expectations are aligned with national and international norms, including the International Atomic Energy Agency (IAEA) and the U.S. Nuclear Regulatory Commission documents related to emergency preparedness.
31. With respect to public consultation, CNSC staff stated that comments, which were mostly technical in nature, were received from the affected licensees as well as from the City of Toronto and the New Brunswick Emergency Measures Organization. CNSC staff further noted that stakeholder feedback was positive and no major objections were expressed. In response to a Commission's question, CNSC staff confirmed that no comments had been received from provincial health and safety authorities.
32. The Commission sought clarification on the implementation of "back out" dose limits. CNSC staff explained that each licensee would have to establish a dose limit that would be used by the emergency responder to back out of a situation and re-evaluate the actions to be taken.
33. The Commission expressed some concern with respect to requirements for licensees to report on self-assessments, specific exercises, and full-scale activities. CNSC staff submitted that the licensees were not required to submit specific reports since it was of the opinion that the CNSC baseline compliance activities and performance-based compliance programs were adequate to verify whether the respective programs and their implementation were meeting expectations. These activities include carrying out audits and inspections during the licence period where, among other factors, CNSC staff would examine the existing reports produced by the licensees. CNSC staff stated that, therefore, reporting requirements were not part of this document but, if deemed to be necessary, would be included in a licence condition. CNSC staff further noted that the objective of RD-353 is to provide guidance to the licensees.

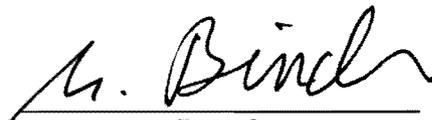
34. The CNSC General Counsel stated that regulatory documents are created to explain the CNCS expectations within its regulatory framework to the licensees and the public. These expectations reflect what CNSC would use to assess compliance and what it would consider when making licensing decisions. The General Counsel explained that regulatory documents are usually supported by the *Nuclear Safety and Control Act*, associated regulations and with licence conditions.

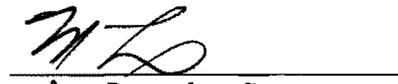
35. Following its deliberation on the matter, the Commission approved RD-353 for publication, as presented in CMD 08-M30.

**DECISION**

Closure of the Public Meeting

36. The public meeting closed at 6:49 p.m.

  
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President

  
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Recording Secretary

  
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Secretary

## APPENDIX A

| CMD  | DATE       | File No   |
|--|------------|-----------|
| 08-M26   | 2008-04-14 | (6.02.01) |
| Notice of meeting held on Wednesday, May 14, 2008 in Ottawa  |            |           |
| 08-M27   | 2008-05-01 | (6.02.02) |
| 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 Wednesday, May 14, 2008                             |            |           |
| 08-M27.A   | 2008-05-12 | (6.02.02) |
| 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 Wednesday, May 14, 2008                     |            |           |
| 08-M28   | 2008-05-06 | (6.02.04) |
| Draft Minutes of the Meeting of the Canadian Nuclear Safety Commission (CNSC) held on April 2, 2008  |            |           |
| 08-M29   | 2008-04-22 | (6.02.04) |
| Significant Development Report no. 2008-4 for the period of April 2 to 22, 2008 – Ontario Power Generation Inc. – Unit 7 Decrease in Gadolinium concentration while in over-poisoned guaranteed shutdown state |            |           |
| 08-M29.A   | 2008-04-22 | (6.02.04) |
| Significant Development Report no. 2008-4 for the period of April 23 to 30, 2008 – Cameco Corporation – Update on Contaminants Discovered under Uranium Hexafluoride (UF <sub>6</sub> ) Plant                  |            |           |
| 08-M29.B   | 2008-05-12 | (6.02.04) |
| Significant Development Report no. 2008-4 for the period of May 1 to 12, 2008 – Atomic Energy of Canada Limited – Notification of a Fatal Accident at Whiteshell Laboratories                                  |            |           |
| 08-M30   | 2008-04-29 | (1.03.04) |
| Regulatory Document: RD-353, Testing the Implementation of Emergency Measures  |            |           |
| 08-M31   | 2008-04-29 | (6.02.04) |
| Status Reports on Power Reactors for the period of March 14 to April 29, 2008  |            |           |