December 11, 2008

Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held Thursday, December 11, 2008 beginning at 2:42 p.m. at the Ajax Convention Centre, 550 Beck Crescent, Ajax, Ontario.

Present:

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

K. McGee, Assistant Secretary
J. Lavoie, Senior General Counsel
M. Young, Recording Secretary

CNSC staff advisors were: G. Rzentkowski, P. Elder, J. Jaferi, A. Régimbald and P. Fundarek

Other contributors were:

- Bruce Power Inc.: F. Saunders
- Cameco Corporation: A. Oliver, K. Vetor, R. Peters and A. Thorne,
- NB Power Nuclear: G. Thomas and R. Eagles
- Acuren Group from Edmonton, Alberta : T. Levey
- TISI Inspection Services from Oakville, Ontario: A. Brady
- Canadian Industrial Radiography Safety Association: R. deBruyn

Adoption of the Agenda

1. The revised agenda, CMD 08-M79.A, was adopted as presented.

Chair and Secretary

2. The President chaired the meeting of the Commission, assisted by K. McGee, Assistant Secretary and M. Young, Recording Secretary.

Constitution

3. With the notice of meeting, CMD 08-M78, 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 November 5 and 6, 2008, Commission Member Documents CMD 08-M78 to CMD 08-M87 were distributed to Members. These documents are further detailed in Annex A of these minutes.

Minutes of the CNSC Meeting Held November 5 and 6, 2008

5. The Commission Members approved the minutes of the November 5 and 6, 2008 Commission Meeting as presented in CMD 08-M80.

STATUS REPORTS

Significant Development Report (SDR)

6. With reference to CMD 08-M81, CNSC staff presented information regarding the Bruce A Nuclear Generating Station (NGS) - Unit 3 Shutdown System 1 (SDS1) reactor trip. CNSC staff stated that the reactor shutdown on November 19, 2008 was caused by human error related to normalizing the primary heat transport low flow transmitters. CNSC staff stated that there was no equipment failure and that Bruce Power was preparing an analysis to determine the root cause of the event.

7. The Commission sought further detail regarding the SDR, including whether the root cause analysis would address the ability of the workers involved in the event to carry out the work. Bruce Power responded that it would provide this information when the follow-up report is presented at an upcoming Commission meeting. Bruce Power stated that it expects the root cause analysis to be complete by January 15, 2009.

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Status Report on Power Reactors

8. With reference to CMD 08-M82, which includes the Status Report on Power Reactors, CNSC staff presented updates on the following:

   - the refurbishment of Units 1 and 2 of the Bruce A NGS;
   - the shutdown of Unit 3 of the Bruce A NGS due to moderator purification issues;
   - the shutdown of Unit 4 of the Bruce A NGS to locate and repair a leak in the Primary Coolant System;
   - a forced outage of Unit 1 of Pickering A for repairs to an Auxiliary Boiler Feed Pump seal leak;

- the defueling of Units 2 and 3 of the Pickering A NGS;
- the forced outage to Unit 4 of the Pickering A NGS for repairs;
- an update on the recovery operation on Unit 7 of the Pickering B NGS, which has been granted approval to re-start; and
- an update on the refurbishment status of the Point Lepreau NGS.

9. CNSC staff provided further details regarding the forced outage for Pickering A Unit 4. CNSC staff explained that alarms indicating low pressure in the boiler room were triggered and since the problem could not be diagnosed and corrected, the unit was shut down. CNSC staff stated that OPG is currently conducting an investigation and suspects that the alarms may have been caused by pressure oscillations in the reactor auxiliary building due to ventilation problems and rapidly changing weather conditions. OPG noted that Unit 4 was in a guaranteed shutdown state and is expected to be restarted on December 15, 2008.

10. The Commission asked if Pickering A Unit 1 was still in a forced outage. CNSC staff responded that it is currently operating at full power.

Updates on items from previous Commission proceedings

SRB Technologies (Canada) Inc. (SRBT): SRBT Status on Meeting its Financial Commitments for the Period of October 28 to November 25, 2008

11. With reference to CMD 08-M83 regarding the updates to items from previous Commission proceedings, CNSC staff presented information regarding the follow-up on the status of SRBT meeting its financial commitments. CNSC staff stated that SRBT is currently meeting its financial commitments to the CNSC.

INFORMATION ITEMS

Cameco Corporation (Cameco): Information update on subsurface contamination discovered at Cameco's Port Hope uranium conversion facility

12. With reference to CMD 08-M84.1, Cameco presented an information update on the subsurface contamination discovered at its Port Hope uranium conversion facility. Cameco also provided information on the historical use of the site, including radium refining and other uses such as a foundry, machine shops, a fertilizer plant and a coal storage yard.

13. Cameco provided information related to the contamination beneath the uranium hexafluoride (UF_6) plant. Cameco stated that the flow of contaminated groundwater has been contained and the conditions that led to the contamination have been resolved. Cameco described the new liquid management practices that have been put in place to ensure that the plant will not leak in the future. Cameco stated that UF_6 production resumed in September 2008.

14. Cameco reported that, following the UF_6 event, further contamination was discovered in the UO_2 plant during a liquid management system upgrade. Cameco stated that the source of the contamination was determined to be the main UO_2 sump pump, and that soil samples were taken from boreholes and sampling locations on the Cameco site to determine the extent and level of contamination. Cameco further stated that it has excavated around the main UO_2 sump and removed 94 percent of the uranium in the soil above the groundwater.

15. Cameco stated that its existing groundwater monitoring data in and around the UO_2 plant does not indicate any groundwater contamination upstream or beneath the building, other than the area around the main sump pump. Cameco stated that it has taken measures to mitigate the flow of contaminated groundwater toward the harbour.

16. Cameco provided information regarding its site-wide environmental investigation that includes 1) a site information assessment, 2) site characterization, and 3) risk assessment and site-wide environmental management plan (SWEMP). Cameco noted that preliminary evaluation indicates there is no risk to the environment from the site contamination and that the harbour water samples have passed toxicity tests.

17. Cameco provided further details on the SWEMP, which includes immediate, interim and long-term actions to remove contamination from the site. Cameco further noted that the SWEMP team will work with the Cameco's Vision 2010 project team to address historical contamination on the site.

18. CNSC staff commented that it is currently reviewing the site-wide environmental investigation. CNSC staff noted that this marks a shift of focus from the UF_6 plant event to a site-wide investigation of the Cameco facility. CNSC staff stated that it will provide a complete update on the site-wide investigation as part of the mid-term report on the Cameco Port Hope conversion facility that is planned for September 2009.

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19. The Commission inquired about the extent of the contamination in the harbour. Cameco responded that it has been monitoring the shallow sediment in the harbour and further studies will be conducted as part of the Government of Canada's Port Hope Area Initiative (PHAI) project. Cameco stated that it will include historical data about the harbour sediment in its 2008 environmental status report. The Commission noted that Cameco must work with the PHAI to determine the extent of the contamination in the harbour water and harbour sediment.

20. The Commission asked whether the new information concerning contamination would affect the financial guarantee previously established for the site. CNSC staff responded that the financial guarantee and decommissioning plan need to be revised on a routine basis, and Cameco will have to include this new information for its next revision. Cameco concurred with CNSC staff and noted that it plans on revisiting the financial guarantee in 2010, following the completion of the SWEMP.

21. The Commission sought further information regarding the storage of the excavated soil. Cameco responded that the excavated soil, which contains uranium contamination, is stored in suitable bags and drums in a licensed area. Cameco noted that it plans to remove the soil from the site in 2010. The Commission expressed the view that the bags should be routinely monitored to ensure that they do not leach. Cameco responded that it would report this information to CNSC staff.

22. The Commission asked about the status of the Vision 2010 and PHAI projects. Cameco responded that it is working to coordinate the Vision 2010 project so that it can be carried out in parallel with the PHAI project.

23. The Commission sought further information concerning the timeframe for the SWEMP. Cameco responded that the risk assessment should be complete by the second quarter of 2009 and the SWEMP will be finalized shortly thereafter.

<u>New Brunswick Power Nuclear (NB Power): 2008 Refurbishment Outage Update</u>

24. With reference to CMD 08-M85.1, NB Power presented its 2008 refurbishment outage update for the Point Lepreau NGS. NB Power provided information on the refurbishment activities being completed during the 18-month outage, on an incident regarding the shipment of new low-pressure turbine rotors and on the health and safety of workers. NB Power stated that the project remains on

time and on budget, and radiological releases to the environment are within the prescribed limits. NB Power stated that it is scheduled to commence refuelling in June 2009, pending CNSC approval.

25. The Commission sought further information concerning the recovery of the two turbine rotors that fell into the water at Port Saint John during delivery. NB Power responded that the turbine rotors were completely and safely recovered from Port Saint John, and they are currently being analyzed to ensure that they are suitable for use. NB Power noted that the primary remaining issue is the effect of the salt water and air on the turbine. NB Power stated that it expects to determine whether or not to use the new turbine rotors in January 2009. NB Power further noted that it is working on a contingency plan to use the original turbine rotors if necessary.

26. The Commission sought further information regarding NB Power's plan to plug condenser tubes that had undergone stress corrosion cracking. NB Power responded that this is standard practice. CNSC concurred, adding that the impact on the safety analysis is assessed to ensure that the safety margins are maintained.

Update on Regulatory Strategy for Industrial Radiography

27. With reference to CMD 08-M87, CNSC staff presented an update on the regulatory strategy for industrial radiography. This was presented as a follow-up to the May 19, 2005 Commission meeting. CNSC staff provided information related to the progress it has made in implementing the regulatory strategy. CNSC staff stated that it would carry out additional efforts in the areas of communications, regulatory expectations, compliance verification and enforcement and in developing a new process for exposure device operator certification.

28. Representatives of the industrial radiography industry, including the Canadian Industrial Radiography Safety Association, provided information and commented on CNSC staff's presentation. The representatives concurred that further efforts need to be made in order to improve regulatory oversight. The representatives provided commentary on CNSC staff's proposed strategy and asked that more work be done to establish performance benchmarks for exposures and events. The representatives noted that certain companies are less diligent than others.

29. The Commission agreed that it is imperative to address the regulatory issues in the industrial radiological industry. The Commission encouraged CNSC staff to collaborate with members of the industry in order to establish what needs to be done to correct the deficiencies and eradicate unsafe practices.

30. The Commission sought more information on the training and qualifications of the industrial radiography workers. Representatives of the industry responded that, although it is a transient workforce, all workers must have appropriate certification. The representatives noted that some workers may receive varying on-site training from several employers. The representatives also noted that it is sometimes difficult to regulate job sites due to the remote locations where work is carried out.

31. The Commission expressed the view that CNSC staff needs to move forward with addressing the issues and communicating with the industry. The Commission directed CNSC staff to return within one year and provide an update with up-to-date worker dose information and input from the industry. ACTION by December 2009

DECISION ITEMS - REGULATORY DOCUMENT

Note: the following item was held in closed session.

Regulatory Document RD-364, *Joint Canada-United States Guide for Approval of Type B(U) and Fissile Material Transportation Packages*

32. With reference to CMD 08-M86 CNSC staff presented to the Commission its recommendation to approve RD-364. CNSC staff provided an overview of the document's objective to assist applicants in preparing applications that demonstrate the ability of a package design to meet either Canadian regulations or United States regulations, or both as applicable. The document would also assist the review and approval of applications for package certification.

33. CNSC staff stated that, pending the Commission's approval, RD-364 could be published in January 2009 to align with the United States Nuclear Regulatory Commission's (NRC) publication of the document (identified as NUREG-1886 in the United States). CNSC staff further stated that a tripartite cooperative arrangement between CNSC, NRC and the United States Department of Transportation would be finalized and implemented in March 2009.

34. After considering the recommendations submitted by CNSC staff, the Commission approves Regulatory Document RD-364, *Joint Canada-United States Guide for Approval of Type B(U) and Fissile Material Transportation Packages*, for publication and use. DECISION

Closure of the Public Meeting

35. The meeting closed at 6:07 p.m.

President

Recording Secretary

Secretary

APPENDIX A

CMD	DATE	File No

08-M78 2008-11-13 (6.02.01)
Notice of Meeting of December 11, 2008

08-M79 2008-11-27 (6.02.02)
Agenda of the meeting of the Canadian Nuclear Safety Commission to be held on Thursday, December 11, 2008, at the Ajax Convention Centre, 550 Beck Crescent, Ajax, Ontario

08-M79.A 2008-12-04 (6.02.02)
Updated agenda of the meeting of the Canadian Nuclear Safety Commission to be held on Thursday, December 11, 2008, at the Ajax Convention Centre, 550 Beck Crescent, Ajax, Ontario

08-M80 2008-12-03 (6.02.03)
Approval of Minutes of Commission Meeting held November 5 and 6, 2008

08-M81 2008-12-03 (6.02.04)
Significant Development Report no. 2008-7 for the period of November 7 to December 3, 2008

08-M82 2008-11-25 (6.02.04)
Status of power reactor units as of November 25, 2008

08-M83 2008-11-25 (6.02.04)
Updates on items from previous Commission proceedings

08-M84 2008-11-26 (6.02.04)
Information update on subsurface contamination discovered at Cameco's Port Hope uranium conversion facility – Oral presentation by CNSC staff

08-M84.1 2008-11-25 (6.02.04)
Information update on subsurface contamination discovered at Cameco's Port Hope uranium conversion facility – Oral presentation by Cameco Corporation

08-M84.1A 2008-12-03 (6.02.04)
Information update on subsurface contamination discovered at Cameco's Port Hope uranium conversion facility – Oral presentation by Cameco Corporation – Supplementary Information

08-M85.1 2008-11-25 (6.02.04)
2008 Refurbishment Outage Update – Oral presentation by NB Power Nuclear

08-M85.1A 2008-12-03 (6.02.04)
2008 Refurbishment Outage Update – Oral presentation by NB Power Nuclear – Supplementary Information

08-M86 2008-11-25 (1.03.02)
Regulatory Document – RD-364, Joint Canada – United States Guide for Approval of Type B (U) and Fissile Material Transportation Packages

08-M86.A 2008-12-03 (1.03.02)
Regulatory Document – RD-364, Joint Canada – United States Guide for Approval of Type B (U) and Fissile Material Transportation Packages – Supplementary Information

08-M87 2008-11-26 (6.02.04)
Updated on Regulatory Strategy for Industrial Radiography