

Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held Wednesday, February 26, 2003, beginning at 2:30 p.m. in the Public Hearing Room, CNSC Offices, 280 Slater Street, Ottawa, Ontario.

Present:

L.J. Keen, Chair

C.R. Barnes

J.A. Dosman

Y.M. Giroux

A. Graham

L. MacLachlan

M.J. McDill

M.A. Leblanc, Secretary

I. V. Gendron, Senior Counsel

C.N. Taylor, Recording Secretary

CNSC staff advisers were C. Maloney, T. Viglasky, J. Presley, J. Blyth, I. Grant and T. Schaubel.

#### Adoption of the Agenda

1. The agenda, CMD 03-M12.B, was adopted as presented.

**DECISION**

#### Chair and Secretary

2. The President took the Chair and the Secretary of the Commission acted as Secretary of the meeting with C.N. Taylor acting as recording secretary.

#### Constitution

3. With the notice of meeting having been properly given and a quorum of Members being present, the meeting was declared to be properly constituted.
4. Since the meeting of the CNSC held January 15, 2003, Commission Member Documents CMD 03-M11 to CMD 03-M18 had been distributed to Members. These documents are further detailed in Annex A of these minutes.

Minutes of the CNSC Meeting Held January 15, 2003

5. The Members approved the minutes of the January 15, 2003 Commission meeting (reference CMD 03-M13) without change.
6. In response to questions from the Members on paragraph 12 of the minutes (concerning a ground stability event at the Cameco Eagle Point Uranium Mine), staff undertook to prepare an update for the next Commission meeting.
7. With respect to a question from the Members on paragraph 27 of the minutes (concerning future reporting on unlicensed uranium mines sites), staff confirmed its commitment to report annually to the Commission and to include in those reports the type of information requested by the Commission.

**DECISION****ACTION**Significant Development Report

8. Significant Development Report (SDR) no. 2003-2 (CMD 03-M14 and CMD 03-M14.A) was submitted by staff on February 6, 2003 and February 19, 2003. Staff reported on the following with reference to the SDR.

Theft of a Device

9. Staff reported that an X-ray fluorescence analyzer, containing two small sources, was stolen on February 4, 2003 in Edmonton, Alberta. Staff noted that the device poses no risk to the public and minimal risk when operated. Staff noted that the local police department has been notified and, to date, the device and sources have not been located.

Loss of Well Logging Source

10. Staff reported that a 74 Gbq Cesium-137 source belonging to Tucker Wireline Services Inc. (TWLSI) and used for logging oil and gas wells was reported lost on January 21, 2003. On receipt of that report, CNSC staff immediately ordered TWLSI to temporarily suspend all uses of nuclear substances, notify the public (via the media) and undertake a thorough search of all sites and roadways where the workers and equipment had been since the source was last used near Pierceland, Saskatchewan on January 19, 2003.
11. Although a thorough search failed to locate the source, CNSC staff has since authorized TWLSI to resume using nuclear substances under revised work conditions, including a prohibition on using the

type of source holding device alleged to have failed. TWLSI is now using an earlier design of the device that has a more secure means of holding the source in place.

12. Representatives from TWLSI described the details of the event and the search in which highly sensitive radiation detection devices were employed. On completion of the investigation, it is TWLSI's opinion that the device that holds the source failed upon removal from the well logging rig and the source dropped undetected down the approximately 500 meter deep well hole. The required transportation index procedures, that would have detected that the source was missing before the crew left the work site, were not followed. The well owner subsequently cemented-in the well casing and began well production, effectively shielding the source from detection and rendering any attempt to recover the source impractical. TWLSI noted that it has taken steps to place warning plaques on the well site and record appropriate information in the well registry. TWLSI stated that the source has a half-life of approximately 30 years.
13. In response to questions from the Members, TWLSI expressed its opinion that theft of the source is highly unlikely given that the source holder was still in place.
14. Staff stated that, while it cannot be 100% certain of where the source is, it considers TWLSI's explanation of events to be plausible.
15. Staff further stated that, while the risk to the public is low, it continues to monitor and evaluate the situation, including the human factors that may have contributed to the event. Staff has also requested all other licensees that possess similar sources to verify their inventories. All other sources were subsequently accounted for. Staff further reported that it is conducting a thorough examination of the CNSC's regulatory processes to help prevent similar events of this type in the future.

#### Electricity Bill (Bill 30) – New Brunswick

16. Staff reported that the Electricity Bill (Bill 30) was tabled by the New Brunswick Legislature on January 31, 2003. The Act provides for, among other things, the restructuring of New Brunswick Power Corporation into a holding corporation with four wholly-owned subsidiary companies, one of which is *New Brunswick Power Nuclear Corporation* which would be responsible for the Point Lepreau Nuclear Generating Station

(NGS) and associated Waste Management Facility.

17. Staff noted that, if the Act comes into force, the Commission will need to consider issuing new licences for the Point Lepreau (NGS) and associated radioactive Waste Management Facility to the new entity by the CNSC. In anticipation of the new legislation, a public hearing of the Commission to consider the issuance of the licences is scheduled for March 26, 2003.

#### Unplanned Shutdown of Point Lepreau NGS

18. Although not part of the written SDR, staff noted that there was a recent unplanned reactor trip at the Point Lepreau NGS. The trip was the result of an error made by a control room operator during a test of one of the shutdown systems. The reactor was returned to power a few days later. At no time did the event pose a risk to persons or the environment. Staff noted that this is a repeat error and the human performance issues are currently under investigation by New Brunswick Power.
19. The Members' questioned why this event did not form part of the written SDR. Staff responded that, while the meeting was the first opportunity to inform the Members, it remains unclear as to whether this type of event constitutes the type of significant development that warrants formal reporting to the Commission in the SDR. Several "reportable events" are processed each month by staff as part of the normal compliance process. To improve consistency and transparency in the formal reporting of significant developments in future, staff offered to propose criteria for the Commission's acceptance concerning what types of events will be reported the Commission in the SDR. The Commission accepted the offer and requested staff to proceed with the development of criteria for this purpose.

#### **ACTION**

#### Bruce 'B' Unit 7 – Start-up Instrumentation Failure

20. Staff reported that an event occurred on December 23, 2002 during the return to critical at the Bruce 'B' NGS Unit 7 following its 2002 planned outage. The event involved the failure of start-up instrumentation to register neutron flux at very low power levels. The instruments were found to have been providing false readings since November 30, 2002 due to their incorrect installation and calibration, together with inadequate training on the use of the detectors. Although the Shutdown System One backup trip linked to this instrumentation was also impaired by the fault, the event did not pose a risk to workers or the public.

21. The Members examined this event at length during the public hearing on the proposed restart of Units 3 and 4 at Bruce 'A' NGS held earlier in the day and, as such, did not examine it further during the meeting.

#### Unplanned Shutdowns at Pickering 'B' NGS

22. Staff reported that Unit 6 at Pickering 'B' NGS was shut down on January 26, 2003 as a result of a condenser cooling water pump trip.
23. Staff also reported that Unit 5 at the same station was manually tripped in response to what was believed to be a failure of a generator seal. The procedure involves opening of the Powerhouse Emergency Venting (PEV) panels to dissipate any hydrogen present. This allowed extremely cold air to enter the building and impair a number of other systems due to freezing of pipes. Staff reported that the affected systems have been repaired and returned to service. Staff noted that, while it is satisfied with OPG's response to the events, it is continuing to follow-up with a more detailed assessment of the event.
24. In response to questions from the Members, Mr. G. Grant of OPG stated that this type of event has not occurred previously, but acknowledged that it could have been predicted given the normal climatic conditions in southern Ontario. Mr. Grant stated that the Abnormal Operating Procedures have been reviewed and OPG has determined that the opening of the PEV panels for this type of initiating event is not necessary. The primary purpose of the PEV is to allow the escape of steam from a steam line break.
25. In response to the Members' questions concerning the possibility of insulating the piping that froze, Mr. Grant responded that the root cause analyses are still underway (being completed within a 35-day window) and that any further mitigating step will be determined when those analyses are complete.
26. The Members asked questions about the threat that the event, including the resulting impairment of the fire suppression system piping, posed to the safety of the plant. In response, Mr. Grant of OPG responded that the emergency response team was mobilized and manual fire suppression was immediately provided on all units. Furthermore, the affected systems remained out of service until normal fire suppression was fully restored.

### CNSC-Saskatchewan Administrative Agreement

27. Staff reported that, on February 13, 2003, the CNSC and the Saskatchewan departments of Environment and Labour signed an administrative agreement aimed at optimizing the participation of those provincial departments in the administration of the CNSC's regulatory regime on uranium mines and mills in Saskatchewan. Staff provided a brief summary of the history and content of the agreement.
28. Staff noted that it will be starting training of the provincial staff on the *Nuclear Safety Control Act* (NSCA) and its regulations beginning in the week of March 17, 2003.
29. In response to the Members question on the agreement, staff confirmed that the ability of the Commission to carry out its responsibilities under the NSCA would not be impaired in any way by the agreement. Operational and management committees will meet periodically to ensure the smooth implementation of the agreement.
30. The Members expressed their congratulations to staff and the other parties involved in reaching this important agreement.

### Saskatchewan Uranium Miners' Study

31. Staff reported that the Saskatchewan Uranium Miners' Study has recently attracted significant media attention due to a recent announcement by the Government of Saskatchewan to share in the cost of the study. Progress on the study continues.

### Pickering NGS 'A' – Return to Service of Unit 4

32. With reference to CMD 03-M15.1, Ontario Power Generation (OPG) presented the third status report on the return-to-service of the four units at Pickering NGS-A. The Commission, in its decision to allow the return to service (dated November 5, 2001), requested that OPG present status reports to the Commission on the project every six months and, in this instance, prior to the restart of each unit.
33. With respect to Unit 4 at Pickering 'A' NGS, OPG reported that, of the 76 prerequisites identified in the licence, 7 have been deferred (with CNSC staff approval) until after removal of the guaranteed

shutdown state (GSS), completion assurance reports for 56 have been submitted to CNSC, 46 have been accepted as complete by CNSC staff, and 13 remain to be completed during commissioning of systems over the coming month.

34. OPG reviewed the rationale for, and status of the 7 items that have been deferred until after removal of the GSS. CNSC staff provided a description of the deferrals and the bases for their approvals. The deferred items involve systems for fire protection and control of oxygen in condensate and feed water which are not required at the time of GSS removal.
35. In response to questions from the Members on the deferred fire protection measures, OPG elaborated on the rationale for why some protection systems are not required until immediately prior to the equipment coming into service (e.g., the turbine fire protection sprinklers are not required until steam is delivered to the turbines for operation). OPG also elaborated on the temporary compensatory measures in place at other locations, such as in the Control Equipment Room. OPG noted that all deferred fire protection upgrades will be in service prior to raising reactor power above 60%.
36. OPG described the challenges being met to complete the necessary documentation, carry out the initial commissioning and testing of equipment, and put a new operational organization in place. OPG expects to have the remaining systems for Unit 4 commissioned and available for service by the end of March 2003.
37. Staff reported that it has been closely monitoring the project and is satisfied with OPG's recent progress. Staff reiterated that only when staff is satisfied that all of the work has been completed, or the exceptions found to be acceptable, will permission be given to remove GSS.

Status Report on Atomic Energy of Canada Limited: Approval to Commence Active Commissioning of the New Processing Facility

38. With reference to CMD 03-M17, staff provided the Members with the eighth progress report on the completion of prerequisites for the commencement of active commissioning at the New Processing Facility (NPF) at the Chalk River Laboratories. In its earlier decision on this matter, dated January 15, 2002, the Commission required status reports on this project at each regularly scheduled Commission meeting until staff had authorized the start of the active commissioning program.

39. Staff reported that only one prerequisite for the commencement of active commissioning at the NPF remains to be completed. The remaining item involves the commissioning of the Active Ventilation System. In response to a question from the Members, staff noted that its review of the remaining issue is expected to be completed within the week and, to date, no significant issues have arisen during the review. Staff expect to be in a position to approve the return to active commissioning shortly thereafter.
40. A representative from AECL, Mr. P. Allen, provided a brief description of the issue involving the Active Ventilation System.

#### Status Report on Power Reactors

41. With reference to CMD 03-M16, staff presented its regular Status Report on Power Reactors.

#### **Closure of the Public Meeting**

42. The public portion of the meeting closed at 4:15 p.m. and the meeting continued in closed session due to the confidentiality of the security issues.

#### Authorizations and Written Consents Pursuant to Section 18 and 31 of the Nuclear Security Regulations

43. With reference to CMD 03-M18, staff recommended, as a result of recent organizational changes at the CNSC, that the Commission rescind its earlier delegation of authority to staff regarding the issuance of inner area entry authorizations and written consents for authorization to act as nuclear security guards pursuant to sections 18 and 31 of the *Nuclear Security Regulations* respectively. Staff further recommended that the Commission concurrently delegate that same authority to the Director, Security and Emergency Response Division, and in his/her absence, to the Director General, Directorate of Assessment and Analysis and, in his/her absence, to the Vice-President Operations. The previous delegations were granted by the Commission following the Commission meeting on October 3, 2001 (as described in its *Record of Proceedings, Including Reasons for Decision* dated November 23, 2001).
44. Staff recommended that the Commission impose the same criteria and instructions on the exercise of the authority as are currently in place.

45. Following deliberation on the matter, the Commission decided to rescind the delegations of authority to give recorded authorizations and written consents pursuant to sections 18 and 31 of the *Nuclear Security Regulations* (as previously granted following the Commission meeting on October 3, 2001).

The Commission concurrently decided to delegate the above-noted authority to the Director, Security and Emergency Response Division, and in his/her absence, to the Director General, Directorate of Assessment and Analysis and, in his/her absence, to the Vice-President Operations on condition that the criteria and instructions set out in Annex B to these minutes are followed.

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*Chair*

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*Recording Secretary*

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*Secretary*

## ANNEX A

CMD	DATE	File No
03-M11	2003-01-23	(1-3-1-5)
Notice of Meeting held on Wednesday, February 26, 2003 in Ottawa		
03-M12	2003-02-12	(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 Wednesday, February 26, 2003		
03-M12.A	2003-02-20	(1-3-1-5)
Revised 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, February 26, 2003		
03-M12.B	2003-02-24	(1-3-1-5)
Revised 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, February 26, 2003		
03-M13	2003-02-11	(1-3-1-5)
Approval of minutes of Commission meeting held January 15, 2003		
03-M14	2003-02-06	(1-3-1-5)
Significant Development Report no. 2003-2		
03-M14.A	2003-02-19	(1-3-1-5, 34-R-178-5)
Significant Development Report no. 2003-2 - Supplementary Information		
03-M15	2003-02-26	(1-3-1-7)
Status Report – Ontario Power Generation Inc.: Return to service of Pickering Nuclear Generating Station A Unit 4 – Oral presentation by CNSC staff		
03-M5.1	2003-02-26	(1-3-1-7)
Status Report – Ontario Power Generation Inc.: Return to service of Pickering Nuclear Generating Station A Unit 4 – Oral presentation by OPG		
03-M5.1A	2003-02-26	(1-3-1-7)
Status Report – Ontario Power Generation Inc.: Return to service of Pickering Nuclear Generating Station A Unit 4 – Oral presentation by OPG – Supplementary Information		
03-M16	2002-02-10	(1-3-1-5)
Status Report on Power Reactors units for the period of 2003-01-06 to 2003-02-10		

03-M17 2003-02-11 (1-3-1-5)

Atomic Energy of Canada Limited: Status Report on Approval to Commence Active Commissioning of the New Processing Facility

03-M18 2003-02-17 (1-3-1-7)

Decision Item - Authorizations and Written Consents Pursuant to Sections 18 and 31 of the Nuclear Security Regulations [in closed-session]

## ANNEX B

### Authorizations and Consents Pursuant to Sections 18 and 31 of the Nuclear Security Regulations

The Canadian Nuclear Safety Commission authorizes the Director, Security and Emergency Response Division, and in his/her absence, the Director General, Directorate of Assessment and Analysis and, in his/her absence, the Vice-President Operations to give recorded authorizations and written consents pursuant to section 18 and 31 of the Nuclear Security Regulations, on condition that the following conditions and instructions are respected:

1. The authorized officers shall have and exercise the powers, duties and functions of the Commission under section 18 and 31 of the *Nuclear Security Regulations* and, in particular, shall in accordance with those provisions, refuse to grant authorizations or consents if there are reasonable grounds to believe that it would give rise to a risk to the security of any nuclear facility or inner area and that the risk would not be eliminated or minimized by appropriate terms and conditions.
2. The Director, Security and Emergency Response Division shall, on request by the Commission, submit a report to the Commission on operations under section 18 and 31 of the Nuclear Security Regulations.