

Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held Thursday, December 1, 2005 beginning at 11:02 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

M.A. Leblanc, Secretary

J. Lavoie, General Counsel

P.D. Bourgeau, Recording Secretary

CNSC staff advisers were: K. Scissons, J. Mecke, R. Stenson, B. Zelmer, B. Barker, C. Purvis, K. Colvin, G. Lamarre, L. Colligan, G. Crawford, I. Grant, P. Webster and T. Schaubel

Other contributors were:

- Atomic Energy of Canada Limited: P. Fehrenbach and T. Gorman
- Bruce Power: F. Saunders
- Ontario Power Generation Inc.: P. Tremblay, T. Mitchell, S. Woods and L. Mitchell

#### Adoption of the Agenda

1. The revised agenda, CMD 05-M70.A, was adopted. The Commission noted that the portion of the meeting originally scheduled for Wednesday November 30, 2005 was postponed one day and all of the agenda items were addressed by the Commission in a single meeting session held on December 1, 2005.

#### Chair and Secretary

2. The President chaired the meeting of the Commission, assisted by M. A. Leblanc, Secretary and P.D. Bourgeau, Recording Secretary.

#### Constitution

3. With the notice of meeting 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 October 18, 2005, Commission Member Documents CMD 05-M69 to CMD

05-M76 were distributed to the Members. These documents are further detailed in Appendix A of these minutes.

#### Minutes of the CNSC Meeting Held October 18, 2005

5. The Members approved the minutes of the Commission Meeting held on October 18, 2005 (reference CMD 05-M71) without change.

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

6. With reference to CMD 05-M73, staff provided its fourth annual status report on site conditions and progress on the licensing of waste management areas owned by the Crown, historic contaminated lands, and devices containing radium-luminous compounds.

#### Consolidated Historic Contaminated Materials Mounds

7. Referring to section 2.1.2 in CMD 05-M73, the Commission sought further information on the status of the warehouse construction at the Coca-Cola Peterborough Consolidated Cell site.
8. In response, staff reported that construction of the warehouse was imminent and that, given the adequacy of the site preparation activities, no problems have occurred, or are anticipated.
9. Referring to section 2.1.1 in CMD 05-M73, the Commission questioned why the Designated Officer had not yet issued a licence for the Lakeshore Road consolidated mound.
10. In response, staff stated that the Designated Officer would be issuing the licence for the Lakeshore Road consolidated mound in the next few days and that it would come into effect on January 1, 2006, concurrently with the expiry of the current exemption for the mound.
11. With respect to the current exemptions from licensing to possess, manage and store nuclear substances at the mound sites located at Tulita, Fort Smith, Fort McMurray and Passmore (which were also due to expire on December 31, 2005) and in respect of a new site in Peterborough, CNSC staff recommended that the Commission, pursuant to section 7 of the Nuclear Safety and Control Act (NSCA), extend the existing exemptions until December 31, 2009, and that the Commission grant a similar exemption to the new Peterborough mound site.

12. In support of its recommendations to grant the exemptions, CNSC staff explained that certain changes to the *Nuclear Substances and Radiation Devices Regulations* have been proposed. The proposed changes (currently undergoing public review) would introduce nuclear substance concentration criteria, below which, for example, a waste material would be exempt from CNSC licensing for the possession, management and storage of those nuclear substances. CNSC staff stated that the length of the proposed exemptions (i.e., until December 31, 2009) would allow time for that regulatory process to be completed and, if the mounds still require licensing at that time, sufficient time to complete the required licensing process. CNSC staff expressed the view that the continued close monitoring and maintenance of the mound sites by the Low-Level Radioactive Waste Management Office would ensure that 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.
13. 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.
14. 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).
15. 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*, accepted the CNSC staff recommendation and decided to exempt the Tulita, Fort Smith, Fort McMurray, Passmore and Peterborough mound sites from CNSC licensing for the possession, management and storage of nuclear substances until December 31, 2009. (See Appendix B)

**DECISION****Devices Containing Radium Luminous Compounds**

16. CNSC staff reported that it completed an assessment of the risk associated with the possession of devices containing radium luminous compounds and has concluded that the risk to each of the

- stakeholder groups is low to very low. CNSC staff stated that it is unlikely that any member of the public would, as a result of possessing any number of these devices, exceed the regulatory dose limit of 1 mSv/year. Currently, anyone with more than 10 of the devices requires a licence from the CNSC to possess, transfer or use the devices.
17. Given the above risk assessment, CNSC staff recommended that the Commission exempt devices containing radium luminous compounds from the limitations specified under subsection 8(b) of the *Nuclear Substances and Radiation Devices Regulations*. The proposed exemption would take effect on January 1, 2006 and be for an indefinite period.
  18. The Commission questioned whether it was possible that persons outside of the target audiences examined by CNSC staff could be in possession of such devices and, if so, whether those individuals could be in any danger as a result.
  19. In response, staff explained that the devices tend to be of interest to antique collectors who normally would not carry out higher risk activities that could cause exposure to, or dispersal of, the radium compounds therein. Staff stated that, while all owners of the devices may not have been targeted by the study, staff expects to inform all owners of the devices about the potential hazards and appropriate precautions through a planned Public Information Program (PIP).
  20. In response to follow-up questions from the Commission on the PIP, CNSC staff stated that a variety of communication strategies will be considered, including the possibility of using public service announcements on available media, to reach those who were not part of the identified target group study.
  21. With reference to section 2.9.2 of CMD 05-M73, the Commission questioned whether CNSC staff's plan to develop a database which will record transactions involving devices containing radium luminous compounds, compile a list of stakeholders, and track CNSC outreach activities will be ready within the next two years.
  22. In response, CNSC staff explained that the database should be fairly complete within the next two years and, after that point, it will be a matter of keeping it up to date.

23. The Commission questioned whether the Canadian Legion had been identified as a group that possesses, or may have an interest in, these artifact devices. In response, staff confirmed that it is providing information and assistance to the Legions in this regard.
24. Further with respect to the proposed PIP, staff stated that the program would be designed to proactively assist the public in identifying devices containing radium luminous compounds, as well as to provide radiation awareness to those stakeholders who possess these devices. The PIP will include a web-based information campaign and will be supported by print and other material available at various public venues, such as at museums.
25. CNSC staff also noted that the PIP was prepared in consultation with the Department of National Defence, Natural Resources Canada, the Low-Level Radioactive Waste Management Office and Transport Canada and also included non-government organizations such as the Canadian Aeronautical Preservation Association, which is an association of approximately 30 aircraft museums across Canada, Royal Canadian Legions and members of the general public.
26. Referring to section 11 of the *General Nuclear Safety and Control Regulations* (the conditions under which the Commission may consider the exemption), staff expressed the view that the proposed exemption 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. CNSC staff also advised the Commission that there is no requirement for a federal environmental assessment for the proposed extension pursuant to the *Canadian Environmental Assessment Act* (CEAA).
27. 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*, decided to exempt indefinitely, devices containing radium luminous compounds from the limitations specified under subsection 8(b) of the *Nuclear Substances and Radiation Devices Regulations*. The exemption will take effect on January 1, 2006 and will be for an indefinite period. (See Appendix B)
28. As proposed by CNSC staff, the Commission requests that CNSC staff present periodic reports to the Commission on any issues related to the exemption of devices containing radium luminous

**DECISION**

compounds, including with respect to the success of the PIP. The reports will be presented to the Commission at least every five years, unless otherwise directed by the Commission.

**ACTION**

**Status Report on Site Conditions and Progress for Unlicensed Uranium Tailings Management Site**

29. With reference to CMD 05-M74, staff presented the fourth update on the status of the Bicroft, Lorado, Gunnar, Port Radium and Indore idle mine sites which the Commission previously exempted from licensing for the possession of management and storage of nuclear substances.
30. With respect to the Indore idle mine in the Northwest Territories, CNSC staff recommended that the Commission, pursuant to section 7 of the Nuclear Safety and Control Act (NSCA), grant an indefinite exemption from the requirement for a licence for the possession, management and storage of nuclear substances. Referring to section 11 of the *General Nuclear Safety and Control Regulations*, staff expressed the view that the exemption 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. CNSC staff also advised the Commission that there is no requirement for a federal environmental assessment for the proposed extension pursuant to the *Canadian Environmental Assessment Act (CEAA)* or the *Mackenzie Valley Resources Management Act (MVRMA)*.
31. Based on the information received, the Commission accepted the staff's recommendation and, and pursuant to section 7 of the *Nuclear Safety and Control Act* and section 11 of the *General Nuclear Safety and Control Regulations*, decided to exempt the Indore Idle Mine site in the Northwest Territories from CNSC licensing for the possession, management and storage of nuclear substances. The exemption is for an indefinite period. (See Appendix B)
32. In making its decision in respect of the Indore idle mine site, the Commission notes that, while the site is in a remote and generally inaccessible location, there remain some unsealed openings to the mine that could pose conventional public safety risks. While the site will be exempt from licensing under the *Nuclear Safety and Control Act*, public safety will continue to be regulated by Indian and Northern Affairs Canada.

**DECISION**

Significant Development Report

33. With reference to section 6.1.1 in CMD 05-M75, staff provided an oral update on a loss of regulation event that occurred at Bruce Nuclear Generating Station (NGS) Unit 3 on September 7, 2005. Bruce Power has completed its investigation and will be submitting its report to the CNSC in the near future. The Commission requested that CNSC staff provide the Commission with a further update on this matter as soon as practical following staff's receipt and review of Bruce Power's report (possibly at the next Commission meeting in February 2006).

**ACTION**

34. With reference to section 6.1.2 in CMD 05-M75, staff provided an update on the sewage sludge disposal issue at Atomic Energy of Canada's (AECL) Chalk River Laboratories that was initially reported to the Commission in a Significant Development Report at the Commission Meeting held on April 6, 2005. The event related to AECL's disposal of sewage sludge contaminated with low levels of radioactive and hazardous substances in unlined sand trenches in Waste Management Area "C" at Chalk River Laboratories.

35. Staff reported that AECL has taken significant steps to address the sewage sludge issue and is allocating significant resources to carry out this project. CNSC staff will continue to monitor the situation and will provide a further update to the Commission on this issue during the licence renewal hearings for CRL site in 2006.

**ACTION**

36. AECL stated that they agreed with the report from CNSC staff on the matter and reiterated that AECL has developed a long-term strategy for sludge management, as requested by the CNSC, and are moving forward with implementing that strategy. The Commission sought further details about AECL's long term strategy in its questioning during the meeting.

37. With reference to section 6.1.3 in CMD 05-M75.A, staff reported that on November 18, 2005, an incident involving a partially opened vent valve at the Bruce B NGS, Unit 6 occurred. Bruce Power stated that the vent valve is not part of a safety system. Bruce Power further stated that the valve was opened an eighth of a turn and that the incident was not related to the work that was being undertaken at the time, but that it may have been accidentally bumped by an individual or an air hose.

38. With reference to section 6.1.4 in CMD 05-M75.A, staff reported that OPG has formally notified the CNSC of its decision to not return Pickering Units 2 and 3 to service. Rather, Units 2 and 3 will be placed in long term storage with surveillance.
39. With reference to section 6.1.5 in CMD 05-M75.A concerning the simultaneous unavailability of Standby Generators at the Pickering B Nuclear Generating Station, Units 7 and 8 in July 2005 (previously reported by staff at the Commission meeting held on August 17, 2005 (ref. CMD 05-M46)), OPG orally updated the Commission on the cause of the event. OPG concluded that its investigation has identified the root cause and that appropriate actions have been taken to prevent such an event from occurring again.
40. OPG provided an oral report on the incident of October 15, 2005 regarding the electrical arc burns to a control technician. OPG provided a brief description of the event and its causes. OPG stated that it has taken appropriate actions with respect to both the human performance and procedural factors involved. OPG further noted that it will provide CNSC staff with the required written report when it is ready.

#### Status Report on Power Reactors

41. Staff presented the Status Report on Power Reactors (CMD 05-M76).

#### Closure of the Public Meeting

42. The public portion of the meeting closed at 2:13 p.m. and the Commission moved in-camera to hear the non-public portion of the Status Report on Power Reactors and deliberate on the decisions.

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*Chair*

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*Recording Secretary*

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Secretary

## APPENDIX A

CMD	DATE	File No
05-M69	2005-10-27	(1-3-1-5)
Notice of meeting held on Thursday, December 1, 2005 in Ottawa.		
05-M69.A	2005-11-08	(1-3-1-5)
Revised notice of meeting held on Wednesday November 30 and Thursday, December 1, 2005 in Ottawa.		
05-M70	2005-11-16	(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 and Thursday, November 30 and December 1, 2005.		
05-M70.A	2005-11-24	(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 Wednesday and Thursday, November 30 and December 1, 2005 - Supplementary Information.		
05-M71	2005-11-14	(1-3-1-5)
Approval of minutes of Commission meeting held October 18, 2005.		
05-M72	2005-11-15	(1-11-20-0)
Nuclear security status report at Canadian nuclear facilities – contains prescribed security information and is not publicly available.		
05-M73	2005-11-15	(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 licence process of waste management areas owned by the Crown, historic contaminated lands, and devices containing radium luminous compounds.		
05-M74	2005-11-15	(37-20-5-0/37-30-13-0/37-20-4-0/37-25-0-0)
Status report on site conditions and progress of the licensing process for unlicensed uranium tailings management sites with staff recommendations.		
05-M75	2005-11-15	(1-3-1-5)
Significant Development Report No. 2005-9 for the period of October 1, 2005 to November 10, 2005.		
05-M75.A	2005-11-23	(1-3-1-5)
Significant Development Report No. 2005-9 for the period of October 1, 2005 to November 10, 2005 – Supplementary Information		
05-M76	2005-11-15	(1-3-1-5)
Status report on power reactors for the period of September 30, 2005 to November 14, 2005		

**APPENDIX B**                    **Canadian Nuclear Safety Commission**  
**December 1, 2005 – Meeting Decisions**

Agenda item 5.1            **Consolidated Historic Contaminated Material Mounds**  
Reference: CMD 05-M73

Pursuant to section 7 of the *Nuclear Safety and Control Act* and section 11 of the *General Nuclear Safety and Control Regulations*, the Canadian Nuclear Safety Commission decided to exempt the Tulita, Fort Smith, Fort McMurray, Passmore and Peterborough mound sites from CNSC licensing for the possession, management and storage of nuclear substances. The Commission concluded that the exemption 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. The exemptions will be effective until December 31, 2009.

Agenda item 5.1            **Devices Containing Radium Luminous Compounds**  
Reference: CMD 05-M73

Pursuant to section 7 of the *Nuclear Safety and Control Act* and section 11 of the *General Nuclear Safety and Control Regulations*, the Canadian Nuclear Safety Commission decided to exempt indefinitely, devices containing radium luminous compounds from the limitations specified under subsection 8(b) of the *Nuclear Substances and Radiation Devices Regulations*. The Commission concluded that the exemption 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. The exemptions will take effect on January 1<sup>st</sup>, 2006 and will be for an indefinite period.

Agenda item 5.2            **Indore Idle Mine Site**  
Reference: CMD 05-74

Pursuant to section 7 of the *Nuclear Safety and Control Act* and section 11 of the *General Nuclear Safety and Control Regulations*, the Canadian Nuclear Safety Commission decided to exempt the Indore Idle Mine site in the Northwest Territories from CNSC licensing for the possession, management and storage of nuclear substances. The Commission concluded that the exemption 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. The exemption is for an indefinite period.