

Canadian Nuclear
Safety Commission



Commission canadienne
de sûreté nucléaire

Minutes of the Canadian Nuclear Safety
Commission (CNSC) Meeting held
on August 20, 2015

Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held Thursday, August 20, 2015, beginning at 9:02 am at the Public Hearing Room, 14th floor, 280 Slater Street, Ottawa, Ontario.

Present:

M. Binder, President
A. Harvey
D. D. Tolgyesi
R. Velshi
S. McEwan

M. Leblanc, Secretary
L. Thiele, Senior General Counsel
D. Carrière/M. Hornof, Recording Secretaries

CNSC staff advisors were: R. Jammal, B. Howden, D. Newland, K. Murthy, R. Awad, M. Rinker, P. Corcoran, M. Santini, B. Poulet, K. Lafrenière, C. Ducros, F. Rinfret, S. Karkour, M. Vesely, P. Wong, L. Makin, K. Glenn, M. Langdon, L. Wallace and S. Eaton.

Other contributors were:

- Ontario Power Generation: K. Gilbert, R. Manley, B. Duncan and L. Morton
- Bruce Power: F. Saunders, J. Scongack and L. Clewett
- Point Lepreau Nuclear Station: S. Granville
- Hydro Québec: D. Olivier
- Office of the Fire Marshall Emergency Management: D. Nodwell
- NB Power: D. Mullin
- Canadian Nuclear Workers' Council: D. Shier
- Nuclear Waste Management Office (NWMO): P. Gierszewski
- Canadian Nuclear Laboratories: J. Miller
- AREVA: J. Corman
- CAMECO: J. Alonso and K. Nagy

Constitution

1. With the notice of meeting CMD 15-M28 having been properly given and all eligible permanent Members of the Commission being present, the meeting was declared to be properly constituted.
2. Since the meeting of the Commission held June 17 and 18, 2015, Commission Member Documents CMD 15-M28 to CMD 15-M34 and CMD 15-M36 were distributed to Members. These documents are further detailed in Annex A of these minutes.

Adoption of the Agenda

3. The revised agenda, CMD 15-M29.A, was adopted as presented.

Chair and Secretary

4. The President chaired the meeting of the Commission, assisted by M. Leblanc, Secretary, and D. Carrière and M. Hornof, Recording Secretaries.

Minutes of the CNSC Meeting Held June 17 and 18, 2015*Overexposure Event at the Montreal Neurological Institute*

5. With reference to the draft minutes of the Commission meeting held June 17 and 18, 2015, the Commission sought further information regarding an overexposure event at the Montreal Neurological Institute. CNSC staff discussed a timeline of events and the Montreal Neurological Institute's response to the event. CNSC staff explained that the worker's initial reporting of the event did not indicate that inadequate radiation protection measures were in place. CNSC staff stated that the facility initiated appropriate investigative procedures and followed procedures for reporting the event to the CNSC. CNSC staff confirmed that the worker is no longer employed by the Montreal Neurological Institute.
6. The Commission enquired about measures implemented to prevent recurrence of this type of event at the facility. CNSC staff responded that it conducted a Type I inspection of the facility following the event and that the facility continues to address the findings of the inspection. CNSC staff explained that the actions of the worker were not rational, thus this type of event is not preventable. CNSC staff stated that the Montreal Neurological Institute has adequate procedures and supervisory oversight, and that no organizational safety culture problems were identified. CNSC staff stated that it will update the Commission following a facility inspection scheduled in September 2015.
7. The Commission is not yet satisfied that all necessary measures are in place to prevent recurrence of this type of event at the facility. The Commission also expressed concerns that prioritization of production over safety could occur at this facility and requested that CNSC staff follow-up to determine if current controls and oversight are sufficient. CNSC staff stated it will look further into this matter.

ACTION

by
October
2015

Approval of the Minutes

8. The Commission Members approved the minutes of the June 17 and 18, 2015 Commission Meeting as presented in CMD 15-M31.

Closure of Event

9. With regards to an event that occurred in March 2015 at the Centre hospitalier universitaire du Québec discussed during the meeting of the Commission held June 17 and 18, 2015, CNSC staff sent a memorandum¹ to the Secretariat dated July 30, 2105. The Commission is satisfied with the information provided by CNSC staff and considers the matter closed.

STATUS REPORTS

Status Report on Power Reactors

10. With reference to CMD 15-M32, CNSC staff presented the Status Report on Power Reactors. CNSC staff had no further update on the report.
11. The Commission requested further information on the fish impingement event reported during the June 17 and 18, 2015 Commission Meeting. An OPG representative responded that OPG's investigation into the causal factors and additional mitigation measures that may be required is ongoing. The net is fully functional and is being regularly monitored. OPG intends on cooperating with the official investigation that the Department of Fisheries and Ocean has commenced under the *Fisheries Act*.

Event Initial Report (EIR)

12. With reference to CMD 15-M34, CNSC staff presented information regarding a minor injury incident of security staff at the Pickering Nuclear Generating Station (NGS). The Commission held a portion of its meeting in camera with CNSC staff and a representative of OPG to enquire into the event and discuss the security-related information and follow-up.

Fire at Nordion (Canada) Inc. on August 6, 2015

13. During the presentation of CMD 15-H7.1A and CMD 15-H7.A on August 19, 2015 in the context of a hearing to consider the application for the renewal of the Nordion (Canada) Inc. (Nordion) operating licence, representatives from Nordion and CNSC staff presented information on a fire that occurred on August 6, 2015 at

¹ Memorandum to M.A. Leblanc from C. Moses dated July 30, 2015: *Suivi sur l'événement au Centre hospitalier universitaire de Québec impliquant l'usage non-autorisé d'une substance nucléaire par Pro Rayons-X inc.* (e-Doc 4796439)

the Nordion Class IB Nuclear Substance Processing Facility in Ottawa, Ontario.

14. CNSC staff reported that it will provide the Commission with an update on this event, including root cause information if available, during the presentation of the CNSC staff *Annual Regulatory Oversight Report for Uranium and Nuclear Processing Facilities in Canada: 2014* at the September/October 2015 Public Meeting of the Commission.

ACTION

by
October
2015

Verbal Updates

Worker Injury at AREVA's McClean Lake Mill

15. CNSC staff presented verbal updates on two matters. The first was in regards to an event that occurred on July 16, 2015 at AREVA's McClean Lake Mill where a lost time injury occurred when a worker sustained a burn to his foot from heated uranium product while working on a calciner. CNSC staff reported that it is reviewing AREVA's initial event reports and corrective actions to prevent recurrence and stated it is satisfied with the progress made to date. CNSC staff stated it will report further on this event in the *Regulatory Oversight Report for Uranium Mines and Mills in Canada: 2015*.

ACTION

By
September
2016

Best Theratronics Non-Compliance with Financial Guarantee

16. The second verbal update was in regards to Best Theratronics Ltd.'s (BTL) non-compliance with its financial guarantee payment schedule². CNSC staff provided background information on BTL's financial guarantee, stating that the first installment payment to the financial guarantee was to be added to the letter of credit by July 31, 2015. CNSC staff reported that BTL informed the CNSC in a letter dated July 27, 2015 that it had not been able to fund its financial guarantee. CNSC staff has not received the updated letter of credit as per the funding schedule. CNSC staff noted that BTL is aware that failure to meet the funding schedule would result in non-compliance with Licence Condition 1.3. CNSC staff stated that it is currently assessing the appropriate regulatory response.
17. The Commission asked if the existing letter of credit is still in place. CNSC staff responded that it is and that they may place an order on BTL to decrease operations to a level commensurate with the value of that letter. CNSC staff explained that BTL proposed to

² Licence Condition 1.3 of NSPFOL-14.01/2019 (e-Doc 4625264)

³ On March 25, 2015, the Commission accepted the payment schedule proposed by BTL and directed CNSC staff to revise the BTL Licence Condition Handbook (LCH) to include BTL's payment schedule. (e-Doc 4706391)

- remove a number of legacy sources, unused sources and depleted uranium to substantially reduce their disposal costs against the financial guarantee. CNSC staff noted that Best Theratronics' plan seems adequate and that it is evaluating this plan to determine appropriate regulatory actions. The Commission asked if BTL is still in full operation. CNSC staff confirmed that they are.
18. The Commission sought further information on the current value of the financial guarantee. CNSC staff explained that the financial guarantee covers costs associated with third-party removal of the current inventory of radioactive material from the site.
19. The Commission enquired about CNSC staff's enforcement plan. CNSC staff responded that it is currently evaluating possible enforcement actions and that it will report to the Commission when an enforcement action is applied.⁴

INFORMATION ITEMS

Regulatory Oversight Report for Canadian Nuclear Power Plants: 2014

20. With reference to CMD 15-M30, CNSC staff presented its annual report "*Regulatory Oversight Report for Canadian Nuclear Power Plants: 2014*" (NPP Report) to the Commission. The NPP Report provides information about the results of CNSC staff's analysis of the safety performance of the Canadian nuclear power industry as a whole, as well as the performance of the Darlington, Pickering, Bruce A and B, Gentilly-2 and Point Lepreau nuclear power plants (NPPs). The NPP Report also provides an annual update on the Fukushima Daiichi Accident response and improvements, safety improvements undertaken by the nuclear industry, and the annual update on the Darlington New Nuclear Project. Representatives from the nuclear industry provided comments on the NPP Report. The Hydro-Québec representative also provided a short update on the activities performed in 2014 related to the planned decommissioning of the facility.
21. Further to the NPP report, Bruce Power presented an update on its re-distribution campaign of potassium iodide (KI) tablets (CMD 15-M30.3). The presentation, which included a public information video, discussed information on the program, information on KI tablets, a description and the status of the two phases of the program, and information on public consultation and communication tools. The Bruce Power representative stated that distribution within the 10-kilometre area is complete and that Bruce Power is now sustaining the program in collaboration with the Province of Ontario.

⁴ On August 24, 2015, a Designated Officer issued an Order to Best Theratronics (e-Doc 4821235).

General

22. The Commission congratulated the industry on its good performance in 2014. The Commission expressed its satisfaction with the streamlined content and structure of the NPP Report and presentation. The Commission suggested using more indicators that compare the industry as a whole against benchmarks that use existing industry measures. The Commission requested that CNSC staff continue to provide updates on CANDU safety issues (CSIs) and other research and development efforts in support of NPP regulation.
23. The Commission enquired about the low number of public interventions in response to the NPP Report. CNSC staff responded that it believes intervenor efforts were focused on the current NPP relicensing files, likely resulting in the low number of interventions for the 2014 NPP Report. CNSC staff stated it followed the same process as previous years to widely advertise the opportunity to review the NPP Report.
24. The Commission suggested that the status of the Darlington refurbishment environmental assessment judicial review appeal be included in the NPP Report.

Safety Assessment

25. The Commission asked CNSC staff to comment on the possible impression that Canadian nuclear power plants are safer than ever because recent improvements to safety were required. CNSC staff explained that nuclear power is safer than ever due to strengthening of defense-in-depth barriers. Significant improvements are constantly being identified. CNSC staff stated that safety is a continuous improvement and that the CNSC and licensees cannot be complacent. A Bruce Power representative reported that its recent probabilistic safety analysis work has demonstrated a reduction in accident frequency on predicted risk by a factor of 10. The Commission further enquired about the impacts of aging factors on safety. The Bruce Power representative explained that aging factors do not have a significant impact on safety systems, but are important for operational reliability. The Bruce Power representative also explained how Bruce Power is addressing aging of systems and components at its facility.
26. The Commission asked why data on maintenance backlogs are not included in the 2014 NPP Report. CNSC staff explained that the recent publication of REGDOC-3.1.1, *Reporting Requirements for Nuclear Power Plants*, which replaces S-99, *Reporting Requirements for Operating Nuclear Power Plant*, created a slight

- delay in data collection for maintenance indicators, as well as changes in reporting requirements. CNSC staff stated that it will include this data in the 2015 NPP report. CNSC staff also stated that it continued to monitor maintenance activities during the transition to REGDOC-3.1.1 and found that facilities' maintenance backlogs are adequate and diminishing.
27. The Commission enquired about safety performance indicators (SPIs). CNSC staff reported that it collaborated with the industry and looked at international indicators to develop the improved SPIs included in REGDOC-3.1.1. CNSC staff added that these indicators evolve with time and that they are currently more comparable to indicators used by other industries. The Commission asked if it would be better to compare conventional safety SPIs in NPPs with those of industries with superior safety performance. CNSC staff responded that, while its comparison demonstrates that NPPs have superior safety performance in the area of conventional safety, it did not compare with the chemical industry due to the unavailability of data. CNSC staff stated that it will look at the possibility of comparing conventional safety SPIs with the chemical industry in the 2015 NPP report.
28. The Commission asked why a fully satisfactory rating for the emergency management safety and control area (SCA) was not achieved by any licensees, despite drills and exercises performed and emergency mitigation equipment installed in 2014. The Commission also enquired about existing gaps for achieving a fully satisfactory rating. CNSC staff responded that, while the industry made significant enhancements in the area of emergency management post-Fukushima, the work to achieve a fully satisfactory rating is ongoing. REGDOC-2.10.1, *Nuclear Emergency Preparedness and Response*, was recently published and was included in the compliance verification criteria under the Bruce Power Reactor Operating Licence (PROL) and for the proposed Darlington PROL.
29. The Commission enquired about the increasing unplanned capability loss factor trend. CNSC staff explained that the unplanned capability loss factor is not an indicator of safety; it is a performance indicator that reflects the effectiveness of plant management in maintaining the availability of systems over time. Representatives from Bruce Power, OPG, and NB Power described the causes of unplanned outages at their respective facilities and mitigation measures implemented to reduce the quantity and frequency.
30. The Commission enquired about the integrated plant ratings and asked if any World Association of Nuclear Operators (WANO) benchmarks were applied to the rating calculations. CNSC staff

- responded that it is not aware of a global indicator from WANO. CNSC staff explained how it determines the integrated plant ratings, stating that it uses weight distributed averages of the 14 SCAs in its calculations and that it performs validation checks to ensure the simplified ratings reflect actual conditions.
31. The Commission enquired about fuel performance at the Darlington NGS and the accumulation of black deposits at the Pickering NGS. An OPG representative explained that problems pertaining to fuel performance at OPG stations are not age-related. At the Darlington NGS, the fuel performance problems were attributed to prescribed tolerances in the fuel manufacturing process requiring revision. They have operated defect free since the tolerances were revised. An OPG representative also reported that changes to the chemistry of the system at Pickering NGS resulted in improved performance with no further significant buildup of black deposits.
32. The Commission asked why Pickering and Darlington NPPs do not have the same performance in the SCA of waste management despite both having the same standard OPG waste management program. CNSC staff explained that performance is based on the implementation of the program. CNSC staff reported on the six inspection findings that contributed to Pickering's performance rating for this safety and control area, two of which were positive, and four of low safety significance. CNSC staff also reported on inspections carried out at the Darlington NGS, which led to the fully satisfactory rating in this SCA.
33. The Commission enquired about the high frequency and severity of conventional health and safety accidents reported at Gentilly-2. A representative from Hydro-Québec responded that the 2015 accident rate to date is zero and explained that the higher frequency and severity of accidents in 2014 is partly due to how accidents are recorded at the facility. The Hydro-Québec representative stated that a correction was made to data presented in the NPP report. CNSC staff confirmed this correction and explained the nature of the accidents that occurred at this facility in 2014.
34. The Commission asked CNSC staff to comment on whether Hydro-Québec is required to conform to the new requirements under the *Fisheries Act*⁵ if it is no longer operating. CNSC staff responded that, while its water intake from the St. Lawrence River has greatly decreased since the reactor was shut down, Hydro-Québec and CNSC staff must still determine if an authorization from the Department of Fisheries and Oceans Canada (DFO) is required for Gentilly-2. CNSC staff reported that it is planning a

⁵ R.S.C., 1985, c. F-14

- meeting with Hydro-Québec to address whether a DFO authorization is required based on current fish impingement and entrainment.
35. With regards to the status of DFO authorizations for other NPPs, CNSC staff added that it is waiting on self-assessments from NB Power regarding the level of fish impingement and entrainment at Point Lepreau and on Bruce Power's proposed mitigation and offset measures. A Bruce Power representative reported that it provided a significant amount of information to First Nations groups and that consultations are ongoing. CNSC staff stated it is also working with First Nations to address their concerns regarding fish impingement and entrainment monitoring at Bruce Power.
 36. The Commission asked why manual reactor trips were excluded from the number of unplanned transients presented in the NPP Report. A Bruce Power representative explained the circumstances under which manual reactor trips are performed. A NB Power representative and CNSC staff explained that the number of unplanned transients is an indicator reflecting automatic actions of the shutdown system only. CNSC staff stated that this indicator only looks at the area of transients, but that all trips, either from manual or automatic responses, are reported to the CNSC. The unplanned reactor transient indicator allows CNSC staff to compare the performance of Canadian NPPs with other plants internationally.
 37. The Commission enquired about personnel certification requirements. CNSC staff responded that all NPPs currently employ a sufficient number of certified personnel. CNSC staff stated that it will look into the possibility of adding another column within Table 2 of the NPP Report to indicate the required number of certified personnel. CNSC staff emphasized the importance of maintaining adequate number of certified staff.
 38. With regards to safety system test performance, the Commission enquired about missed safety system tests. A Bruce Power representative explained that, on occasion, conditions in the plant can prevent the operator from performing a particular safety system test on the day it is scheduled; therefore, the test is delayed by one or two days. The Bruce Power representative stated that safety system tests form part of the reliability data for the plant and are not related to unavailability, unless the test fails. CNSC staff concurred with Bruce Power. The Commission asked if the safety system tests require the reactor to be shut down. A Bruce Power representative explained how safety systems are designed and how testing is performed to allow continued operation. The Commission asked why NB Power has a larger number of safety system tests compared to other operators. A NB Power representative

responded that they are currently planning to review the number of tests they perform to better align with industry best practices.

Regulatory Developments

39. The Commission enquired about the status of Hydro-Québec's detailed decommissioning plan for Gentilly-2. A Hydro-Québec representative responded that its preliminary decommissioning plan was submitted to CNSC staff and that it will present an update to the Commission in December 2015. CNSC staff confirmed that Hydro-Québec's preliminary decommissioning plan and financial guarantee were received on March 31, 2015 and are currently being reviewed. CNSC staff stated that the detailed decommissioning plan is not immediately required since the reactor will be in a safe storage state for approximately 40 years.
40. The Commission asked how the minimum shift complement is defined for Gentilly-2. CNSC staff explained that, as per regulatory requirements, Hydro-Québec must determine via a study the minimum shift complement necessary to properly respond to the worst case accident and activate Hydro-Québec's emergency plan. Hydro-Québec made system modifications to enhance response to accidents and its study is expected to be completed by September 2015.
41. The Commission enquired about the Pickering NPP permanent date for end of operations. An OPG representative responded that its current business plan includes a permanent shutdown date of 2020, but that OPG operates and maintains the plant under the assumption that operations will continue beyond 2020. The OPG representative stated that it will notify the CNSC formally by June 30, 2017 of its plans to end commercial operations at Pickering NPP, as required by the Pickering PROL.
42. The Commission also asked why REGDOC-2.2.2, *Personnel Training*, cannot be implemented before 2016-2018. CNSC staff responded that it believes the industry is currently in compliance with the requirements of REGDOC-2.2.2, but that the operators must complete their gap analyses to validate that all requirements under this regulatory document are met. An OPG representative stated that it has completed its gap analysis and full implementation is scheduled to be completed by January 1, 2016. A Bruce Power representative discussed the significance of verifying compliance through the gap analysis, which explains the delay in full implementation.
43. The Commission also enquired about the delayed implementation dates of other CNSC regulatory documents. CNSC staff explained that full implementation requires licensees to show they are fully

compliant with the regulatory document in question. CNSC staff discussed some of the ongoing work and stated that the timelines are reasonable. With regards to the management system requirements, an OPG representative explained that a significant amount of effort is required to implement requirements under new regulatory documents and to ensure full compliance. The Commission stated that the intent of new regulatory documents is to clarify requirements, not impose new ones. The Commission is concerned that long-term implementation dates give the impression that big gaps between old and new requirements exist. The Commission recommended that CNSC staff and licensees find a way to accelerate the implementation schedule. An OPG representative stated that it is willing to work with CNSC staff on accelerating the timelines to full implementation.

Fukushima Daiichi Response

44. The Commission enquired about the Fukushima Action Plan and the Fukushima-related plant modifications and equipment implementation. CNSC staff explained that the Fukushima Action Plan contains action items raised by the CNSC and that licensees were required to propose plans for addressing them. CNSC staff stated it proceeds with closing the action items in the Fukushima Action Plan once it is satisfied that they are adequately addressed by the licensees' plans. CNSC staff also explained that the plans must be implemented by the licensees. CNSC staff reported that the Fukushima Action Plan is expected to be closed by the end of 2015. However, CNSC staff stated it will continue to monitor the implementation of the station-specific licensees' plans.
45. The Commission asked if there is a way to identify the integration of implementation activities developed from the Fukushima Action Plan into routine operational monitoring and planning. CNSC staff explained that implementation actions are tracked beyond closure. CNSC staff stated that the implementation of the plans developed in response to the Fukushima Action Plan is outlined in the licensees' Licence Condition Handbook (LCH) and CNSC inspectors follow-up on implementation. The Commission recommended that the NPP report clearly indicate that Fukushima implementation activities will be incorporated in the CNSC's day-to-day compliance activities at the facilities.

Interventions

46. In CMDs 15-M30.1 and 15-M30.2, the Power Workers' Union (PWU) and the Canadian Nuclear Workers' Council (CNWC), respectively, stated they were satisfied with the contents of the report as presented by CNSC staff.

47. In its submission, the PWU noted it was concerned with licensees' ability to qualify a sufficient number of personnel in certified positions, but stated that it recognizes improvements are being made. The Commission enquired about the PWU's concern. CNSC staff responded that, while the number of certified personnel at the sites is adequate, it is monitoring this number against the minimum shift complement to ensure there is no impact on performance due to overtime stress and fatigue. CNSC staff explained the ongoing work for maintaining the number of certified personnel. The Commission asked how the Pickering NPP maintains an adequate number of qualified personnel knowing that the plant is expected to shut down in the near future. An OPG representative responded that they are seeing good throughput from their training program and that workers generally see a long-term future in nuclear power in Canada. The OPG representative explained their approach to engaging workers through the training program.
48. The Commission enquired about the CNWC's statement that "CNWC member unions capably provide an additional level of oversight to regulatory oversight by CNSC staff". A CNWC representative explained that they support the efforts to operate safely through good rapports between the unions, operators and the CNSC.

Overview of the 5th Review Meeting of the Joint Convention on the Safety of Radioactive Waste Management and on the Safety of Spent Fuel Management

49. With reference to CMD 15-M33, CNSC staff presented its report entitled "*Overview of the 5th Review Meeting of the Joint Convention on the Safety of Radioactive Waste Management and on the Safety of Spent Fuel Management*" to the Commission. The report provides information about the international agreement governing all aspects of spent fuel and radioactive waste management, the level of participation in the 5th Review Meeting, as well as the outcomes and conclusions from this meeting. Canadian delegates were represented by CNSC staff, members of other government organizations and members of industry.
50. The Commission asked if the challenges identified for Canada during the 5th Review Meeting were part of Canada's self-assessment and identification. CNSC staff responded that, as part of Canada's self-assessment, challenges were identified by Canada and agreed upon by Contracting Parties to the convention. The Commission asked who is responsible for addressing Canada's challenge to develop an integrated strategy for non-OPG low- and intermediate-level waste disposal. The Canadian Nuclear Laboratories (CNL) representative responded that the Canadian

- nuclear industry is working together to develop a strategy to address the challenges.
51. The Commission enquired about how the approaches used by other member countries to respond to the Fukushima nuclear accident compared with the Canadian approach. CNSC staff responded that Canada is one of only two countries that applied Fukushima lessons learned across all major facilities. CNSC staff explained the gaps that exist internationally with respect to nuclear accident response. The Commission asked how Fukushima site remediation is progressing. CNSC staff discussed some of the remediation problems encountered. Absence of international consistency with respect to what is a health limit and inconsistency in applying health limits for emergency response and recovery has caused challenges in Fukushima's site decontamination. CNSC staff also discussed its views on regulatory requirements, guidelines for evacuation and recovery, as well as international action levels harmonization.
 52. The Commission asked how the 5th Review Meeting compared to previous Meetings in terms of participation, interest and involvement. CNSC staff responded that the number of Contracting Parties and the number of countries that did not attend in person are comparable. However, the number of Contracting Parties not posing any questions jumped from nine to 26. CNSC staff stated that a number of smaller Contracting Parties who would benefit from the peer review do not present a report or ask questions. CNSC staff stated that it believes that the lack of participation is either due to the requirements of the convention being too exhaustive for smaller establishments, heads of state not communicating information and requirements to establishments responsible for preparing the report, or due to Contracting Parties purposely deciding not to participate.
 53. The Commission asked if any of the good practices identified for other contracting parties applied to Canada's regulatory program. CNSC staff responded that, from a regulatory perspective, none applied in terms of added clarity or enhancement. CNSC staff gave examples of the good practices identified for other countries.
 54. The Commission asked if the developed world is helping countries with less developed nuclear programs, and if the latter are receptive to the help. CNSC staff responded that there are international efforts, including technical cooperation and capabilities under the IAEA, to assist those countries. They are receptive to date and are trying to make improvements. CNSC staff discussed efforts with respect to Kazakhstan.

CNSC Staff Update on the Forest Fires in Northern Saskatchewan

55. With reference to CMD 15-M36, CNSC staff presented the update “*Forest Fires in Northern Saskatchewan – 2015*” to the Commission. CNSC staff discussed the impacts of forest fires in northern Saskatchewan on the safety and operation of uranium mine and mill facilities. CNSC staff stated that it monitored the forest fire situation and that it was satisfied with the licensees’ contingency plans and of the licensees’ effective fire response management. CNSC staff reported that there was no impact to the health and safety of workers or regulated facilities from the forest fires.
56. The Commission asked if the forest fires affected underground operations. The Cameco representative responded that the predominant wind blows the smoke away from the site and that, while a few smoky days were experienced, smoke did not infiltrate through to underground operations. Outdoor work activities were suspended for one day, but mining operations were not required to be suspended at any point this year due to forest fires.
57. The Commission enquired about the emergency evacuation communication method in underground mines. The Cameco representative responded that stench gas is used to alert miners to report to refuge stations.
58. The Commission enquired about the protective measures in place for consumables stored above ground on site. The Cameco representative responded that fuel and chemical storage facilities are generally located within the developed industrial apron of the facilities and that these storage facilities are in compliance with both provincial regulations for storage and the *National Fire Code of Canada*⁶ requirements. As part of its precautionary measures, sprinklers are available.
59. The Commission asked how this year compares in terms of numbers and scope of forest fires with previous years. CNSC staff responded that the year 2015 is currently comparable to the 2008 and 2012 seasons in terms of numbers and areas. However, as a few months are left in 2015 and there are 47 fires still burning, this year will most likely be the worst in the last 10 years.
60. The Commission asked if an evacuation of a uranium mine and mill site due to forest fires was required. The AREVA representative responded that their operations over the last 10 years have not been suspended due to forest fires, but were challenged this year by having access roads blocked by fires. The Cameco

⁶ NRCC 53303, 2010

representative responded that it had to safely shut down its Rabbit Lake mining and milling activities in 2012 and removed all non-essential personnel from site.

- 61. The Commission asked if potential improvements to emergency management plans and programs were identified from this year's forest fires. The AREVA representative responded that the mutual assistance agreement between the various operators in the north was very beneficial during the dynamic forest fire situation and the five sites teleconferenced on a daily basis. Also, AREVA will revisit the adequacy of reagents and fuel storage on site. The Cameco representative stated that it plans on formalizing communication and logistics that occurred regarding forest fires to have them more readily available in the future. CNSC staff stated that they will meet with Cameco and AREVA at the end of the summer to discuss lessons learned and possible improvements to continue to ensure the protection of sites, workers and the environment. CNSC staff also emphasized the importance and success of social media as a communication tool by licensees and government during forest fire management.

- 62. The Commission enquired about the impacts of forest fires on construction timelines and activities at the McClean Lake Mill. The AREVA representative responded that delivery delays on materials were minimal and demobilization of contractors lasted approximately one week.

- 63. The Commission enquired about site mobilization in the event of a full evacuation. The Cameco representative explained that facilities can be safely shut down in the event of a full evacuation, and that they would only maintain sufficient operational personnel to staff essential safety control facilities.

Closure of the Public Meeting

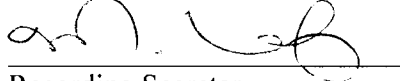
- 1. The meeting closed at 3:44 pm.



 Recording Secretary

OCT 05 2015

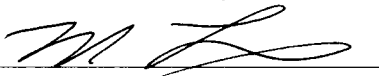
 Date



 Recording Secretary

OCT 05 2015

 Date



 Secretary

OCT 05 2015

 Date

APPENDIX A

CMD	DATE	File No.
15-M28 Notice of Meeting of the Canadian Nuclear Safety Commission (CNSC) to be held on Thursday, August 20, 2015 in the Public Hearing Room, 14 th floor, 280 Slater Street, Ottawa Ontario	July 9, 2015	e-Docs 4793193
15-M29 Agenda of the meeting of the Canadian Nuclear Safety Commission (CNSC) to be held on Thursday, August 20, 2015 in the Public Hearing room, 14 th floor, 280 Slater Street, Ottawa, Ontario	August 05, 2015	e-Docs 4793402
15-M29.A Revised agenda of the meeting of the Canadian Nuclear Safety Commission (CSNC) to be held on August 20, 2015, in the Public Hearing Room, 14 th floor, 280 Slater Street, Ottawa, Ontario	August 13, 2015	e-Docs 4814055
15-M31 Approval of the Minutes of Commission Meeting held on June 17 and 18, 2015	August 17, 2015	e-Docs 4820384
15-M32 CNSC Status Report on Power Reactors	August 17, 2015	e-Docs 4819808
15-M34 Minor injury incident of security staff at Pickering Nuclear Generating Station (CMD 15-M34 contains prescribed security information and is not publicly available)		
15-M30 Regulatory Oversight Report for Canadian Nuclear Power Plants: 2014	June 16, 2015	e-Docs 4493976
15-M30.A Regulatory Oversight Report for Canadian Nuclear Power Plants: 2014 – Oral presentation by CNSC Staff	August 13, 2015	e-Docs 4494131
15-M30.1 Regulatory Oversight Report for Canadian Nuclear Power Plants: 2014 – Written submission from Power Workers’ Union	July 16, 2015	e-Docs 4803313
15-M30.2 Regulatory Oversight Report for Canadian Nuclear Power Plants: 2014 – Written submission from Canadian Nuclear Workers’ council	July 16, 2015	e-Docs 4803460
15-M33 Overview of the 5 th Review Meeting of the Joint Convention on the Safety of Radioactive Waste Management and on the Safety of Spent Fuel Management – Oral presentation by CNSC Staff	August 13, 2015	e-Docs 4815665
15-M36 Forest Fires in Northern Saskatchewan – Oral Presentation by CNSC Staff	August 13, 2015	e-Docs 4818012