



Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held Friday, March 1, 2002, beginning at 8:30 a.m. in the Public Hearing Room, CNSC Offices, 280 Slater Street, Ottawa, Ontario.

Present:

L.J. Keen, Chair
C.R. Barnes
Y.M. Giroux
A.R. Graham
L.J. MacLachlan

M.A. Leblanc, Secretary
I.V. Gendron, Senior Counsel
C.N. Taylor, Recording Secretary

Commission staff advisers were J. Blyth, P. Elder, G. Riverin, B. Howden, L. Colligan, L. Chamney, T. Viglasky, J. Power, A. Aly, G. Martin, M. Taylor and D. Metcalfe.

Adoption of the Agenda

1. The agenda, CMD 02-M8.A was adopted as presented.

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 17, 2002, Commission Member Documents CMD 02-M7 to CMD 02-M18 had been distributed to Members. These documents are further detailed in Annex A of these minutes.

Minutes of the CNSC Meeting Held January 17, 2002

5. The Members approved the minutes of the January 17, 2002 meeting of the Commission (reference CMD 02-M9) without change.

DECISION

Significant Development Report

6. Members reviewed Significant Development Reports numbered 2002-2 (reference CMD 02-M10) for the period of January 15 to February 12, 2002.
7. There were no significant developments during the reporting period.

Environmental Assessment (EA) Guidelines for the Proposed Restart of Units 3 and 4 at Bruce 'A' Nuclear Generating Station

8. CNSC staff submitted for the approval of the Commission (as reproduced in Appendix A to CMD 02-M11) a document titled "EA Guidelines (Scope of Project and Assessment), Environmental Assessment of the Proposed Restart of Units 3 and 4 of Bruce 'A' Nuclear Generating Station, Kincardine, Ontario".
9. CNSC staff explained the purpose of the EA Guidelines with respect to fulfilling the requirements of sections 15 and 16 of the *Canadian Environmental Assessment Act* (CEAA), and the conduct of the technical studies to be carried out by Bruce Power in support of the required environmental assessment Screening Report.
10. CNSC staff explained the process it followed to prepare the draft EA Guidelines in consultation with other federal and provincial government departments and the public.
11. CNSC staff also explained the remainder of the EA process steps to follow, including staff's proposal to continue the public consultations throughout the EA, and to bring the final Screening Report before the Commission for a decision pursuant to section 20 of the CEAA at the same public hearing as planned for the licensing decision.
12. The President noted for the record that, under the CEAA, the Commission was not required to consider the draft EA Guidelines at a public meeting, or to receive and consider written submissions from the public at a meeting.
13. The Members clarified that the purpose of the Meeting item was to first consider a decision on whether to refer the project to the Minister of the Environment for referral to a mediator or review panel (i.e., pursuant to section 25 of the CEAA); and if not, the Commission would consider and determine the *scope of the project*

(pursuant to section 15 of the CEAA), and the *scope of the factors* to be considered in the assessment (pursuant to section 16 of the CEAA). The latter two decisions involve approval of the EA Guidelines, as presented by staff in Appendix A to CMD 02-M11, or as amended by the Commission.

14. With regard to the option of referring the project to the Minister under section 25 of the CEAA, staff advised the Members that it was not aware of any potential environmental effects or public concerns that would warrant a need at this time to have the project referred to a mediator or review panel. Staff expressed the view that the issues identified to date can be adequately addressed in a self-directed screening assessment. Staff noted, however, that the decision rests ultimately with the Commission and that the Commission may make such a referral at any time during the course of the assessment. Staff indicated that it would closely follow the evolution of the assessment and periodically reconsider its recommendation to the Commission in regard to a referral under section 25.
15. On the matter of how the Commission is to gauge the significance of public concern in judging whether the project should be referred to the Minister, the Members questioned staff on the nature of the approximately 125 letters received that make such a request for referral. Staff noted that its recommendation for not referring the project is not solely based on the number of requests, but also on the substance of those requests. The Members acknowledged the importance of evaluating the merit of each submission and not simply the number of submissions.
16. Further on the matter of evaluating the level of public concern for decision making, the Members explored with staff the possibility of conducting statistical surveys of public opinions and attitudes. Staff expressed the opinion that the public consultation activities to date and planned are broad-based, go well beyond the requirements of the CEAA, include some survey questionnaires, and provide a variety of opportunities for the public to be informed about, and react to the project and EA findings.
17. On the matter of public workshops already held by Bruce Power to identify Valued Ecosystem Components (VECs), and with reference to public comments 45 and 46 in Appendix B of CMD 02-M11, the Members received confirmation from staff that mallard ducks, osprey and muskrats are on the current VEC list.

18. Further on the matter of future public consultation, and specifically the list of stakeholders in section 9.2.9 of the draft EA Guidelines, the Members questioned staff as to how independent experts, such as independent scientists and academics, will be consulted. Staff responded that it will be reviewing the studies in consultation with subject-matter experts in the public and in other federal and provincial government departments. Furthermore, staff will engage other expert reviewers as necessary to bring the appropriate level of knowledge to the completion of the assessment.

ACTION

19. With reference to section 9.2.2 (Project Description) of the draft EA Guidelines, the Members questioned staff on the malfunctions and accidents that will be considered. Specifically the Members questioned why a “worst-case” event was not being recommended for consideration. Staff expressed the view that the CEAA refers to accidents and malfunctions that “may occur” and that it does not require all conceivable or possible accidents be considered regardless of likelihood of occurrence. Staff explained that it is considering all the relevant safety analysis information and is recommending the inclusion of very low probability accident events in the EA (i.e., events with an estimated probability of occurring of greater than one in one million years). Staff expressed the opinion that, in keeping with the CEAA requirement to account for mitigation measures, it is relevant to take account of the principal features of the plant design and operation that exist for the purpose of preventing extremely low-probability, high-consequence events. In that way, staff considers that the EA can be appropriately used to identify any additional mitigation that may be required. In response to a follow-up question from the Members, staff indicated that, to ensure public understanding of the process, the rationale for considering accidents and malfunctions will be clearly documented in the Screening Report.

20. With reference to section 9.2.5 of the draft EA Guidelines (Assessment and Mitigation of Environmental Effects), the Members questioned staff on the use of the term “external natural hazards” and whether this term is meant to address the requirement to consider how the environment could affect the project. Staff confirmed that term is intended to fulfill that requirement. For clarity, the Members request that the relevant wording of the EA Guidelines be modified as set out in the decision statement in Annex B to these minutes.

ACTION

21. With reference to section 9.2.7 of the draft EA Guidelines (Assessment of the Effects on Sustainability of Resources), the Members questioned staff on the use of the term “natural

resources” and whether this was meant to address the requirement to assess the effects of the project on the capacity of renewable resources. Staff responded that the term was meant to be read as synonymous with that requirement. For clarity, the Members request that the text of the EA Guidelines be modified as set out in the decision statement in Annex B to these minutes.

ACTION

22. The Members questioned staff as to why the “need” for the project was not being recommended for inclusion in the screening. Staff responded that, as with the consideration of “alternatives to the project”, an examination of “need” is not required by the CEAA (it is discretionary) and that to do so would require examination of issues of provincial energy policy and private business affairs that are beyond the mandate of the CNSC. The Members accepted this explanation, but require, as specified in the decision statement in Annex B to these minutes, that the concepts of “need” and “alternatives to” be reflected in the EA Guidelines as separate issues.

ACTION

23. With reference to the list of items to be considered in section 9.2.2 (Project Description), the Members questioned staff on how the important issue of facility component aging and wear will be addressed in the screening assessment. Staff responded that detailed safety evaluations on component aging and wear will be carried out in parallel with the EA as part of the licensing review process. Staff explained that, for the proposed reactor operations (which are the subject of the EA) to proceed, all safety relevant equipment will have to meet the minimum requirements and any required upgrades will have had to be completed. A recommendation to authorize the project would not be made by staff until this is confirmed in the licensing process. In a related question, the Members focused specifically on the staff’s projection of a 14-year remaining life for the pressure tubes and sought clarification as to how that will be confirmed. Staff responded that the pressure tube life projection is based on considerable experience and data gathered during past operations. Staff further indicated that the behavior and condition of the pressure tubes will be continually assessed and reevaluated if the project is approved. Staff considers the 14-year life is a reasonable assumption for initiating the EA. For these and other critical components, staff further noted that it will be carrying out, as part of the licence application review, a comprehensive review of the facility against all current codes and standards to determine if any upgrades or improvements are necessary before staff recommend authorization of the project.

24. The Members asked staff how the issue of having adequate skilled personnel on the site will be addressed in the EA. Staff indicated that this is another matter that will be addressed thoroughly in the licensing process and that a recommendation to authorize the project would not be forthcoming from staff until the requisite skills are put in place by Bruce Power. Furthermore, staff noted that the planned assessment of malfunctions and accidents will capture a range of events irrespective of their initiating causes.
25. Acknowledging the concerns expressed by the public in the review of the draft EA Guidelines about security and threats of terrorism, the Members explored with staff how security issues and measures will be addressed in the EA. Staff explained that security is another important aspect of the licensing process and that no significant security deficiencies will be permitted during future operation of the facility. The Members consider, however, that security measures form an important ancillary part of the project and could play a role in the prevention or mitigation of potential environmental effects. As such, the Members request staff to modify sections 7.0 (Scope of the Project) and 9.2.2 (Project Description) as specified in the decision statement attached as Annex B to these minutes. The Members note that security information of a confidential or prescribed nature (as referred to in sections 21 to 23 of the *General Nuclear Safety Regulations*) will not be divulged in the Screening Report or other related public documents.
26. The Members queried staff on the availability and use of baseline data in the EA. Staff responded that there is considerable pre-project baseline environmental data. Staff indicated that the baseline will be considered during the assessment to predict likely incremental effects of the project and to determine the requirements for follow-up monitoring of the actual change in effects.
27. The Members confirmed with staff that the assessment of aquatic ecology includes both the riverine and lacustrine (Lake Huron) environments.
28. With reference to section 9.2.3 (Spatial and Temporal Boundaries of the Assessment), the Members sought clarification from staff on the boundaries and application of the identified study areas. The Members specifically questioned whether the study areas include Lake Huron (including Baie du Dore), and allow for an examination of the effects on VECs and from malfunctions and accidents. Staff responded that the site, local and regional study areas described in the EA Guidelines are the initial areas for the

ACTION

study based on current knowledge and that they cover both the land and the lake environments. Staff explained that, depending on the nature and significance of the predicted effects identified during the course of the EA, the study areas may change to ensure the full extent and significance of each identified effect is understood. Staff further noted that the levels of detail in the assessment will be driven by the nature and potential significance of an effect and not by the study area in which the effect is predicted to occur.

29. Further in regard to the definition of the Regional Study Area in section 9.2.3 of the draft EA Guidelines, the Members request a wording change as specified in the decision statement attached as Annex B to these minutes.

ACTION

30. Noting comments from the public in regard to the type of projects that should be included under the assessment of cumulative effects, the Members sought clarification on the proposed scope of this aspect of the assessment. Staff responded that past, present and future projects and activities within the study area, or zone of impact of the project, are being proposed for inclusion in the assessment of cumulative effects.

31. With reference to the specific comments of Canadian Agra Corporation on the draft EA Guidelines which request full disclosure of information by Bruce Power, the Members sought staff's opinion on the appropriateness of such an action. Staff responded that all relevant information will be used in the environmental assessment and made fully accessible to the public through the Public Registry established for this assessment. Furthermore, staff expressed the view that sworn statements of this nature are not required and drew the Commission's attention to section 48 of the NSCA that makes it an offence to knowingly make a false or misleading statement to the Commission.

32. The Members requested that staff, in preparing the Screening Report, focus on the issues of key importance, thus avoiding unnecessarily large amounts of documentation of non-relevant or low-risk issues. Staff responded that the studies will be completed in a hierarchy with the actual Screening Report focused on the key areas as suggested by the Members.

33. Based on the information presented for and during the meeting, the Commission decided not to refer the Bruce restart project to the Minister pursuant to section 25 of the CEAA at this time, and to approve the EA Guidelines for the project, pursuant to sections 15 and 16 of the CEAA, with a number of specific modifications. The

details of the decision and required modifications are set out in Annex B to these minutes.

DECISION

Environmental Assessment Guidelines for the Proposed Iter Facility

34. CNSC staff submitted for the approval of the Commission (as reproduced in Appendix A to CMD 02-M11) a document titled “EA Guidelines (Scope of Project and Assessment), Environmental Assessment of the Proposed Iter Facility, Clarington, Ontario.
35. CNSC staff explained the purpose of the EA Guidelines with respect to fulfilling the requirements of sections 15 and 16 of the *Canadian Environmental Assessment Act* (CEAA), and the conduct of the technical studies to be carried out by the Iter Institute in support of the required environmental assessment Screening Report.
36. CNSC staff explained the process it followed to prepare the draft EA Guidelines in consultation with other federal and provincial government departments and the public.
37. CNSC staff also explained the remainder of the environmental assessment process to follow, including staff’s proposal to continue the public consultations throughout the assessment, and to bring the final Screening Report before the Commission at a public hearing for a decision pursuant to section 20 of the CEAA.
38. The President noted for the record that, under the CEAA, the Commission was not required to consider the draft EA Guidelines at a public meeting, or to receive and consider written submissions from the public at a meeting.
39. The Members clarified that the purpose of the Meeting item was to first consider a decision as to whether to refer the project to the Minister of the Environment for referral to a mediator or review panel (pursuant to section 25 of the CEAA); and if not, the Commission would consider and determine the *scope of the project* (pursuant to section 15 of the CEAA), and the *scope of the factors* to be considered in the assessment (pursuant to section 16 of the CEAA). The latter two decisions involve approval of the EA Guidelines, as presented by staff in Appendix A to CMD 02-M13, or as amended by the Commission.
40. With regard to the option of referring the project to the Minister under section 25 of the CEAA, staff advised the Members that it was not aware of any potential environmental effects or public

concerns that would warrant a need at this time to have the project referred to a mediator or review panel. Staff noted that the EA had only just begun and thus it was too soon to consider the environmental effects for the purpose of deciding on a referral under Section 25. Staff expressed the view that the issues identified to date, including the concerns raised by the public, can be adequately addressed in a screening assessment. Staff acknowledged that the decision to refer the project to the Minister rests ultimately with the Commission and that Commission may make such a referral at any time during the course of the assessment.

41. The Members expressed concern that little information had been provided in the meeting documents concerning the nature of the facility and, as such, it was unclear what the Commission would be asking to be assessed in the proposed screening assessment. In response, staff explained that detailed information about the project is contained in the documentation referenced in CMD 01-M13. In summary, staff explained that the facility would be the same approximate size as a single unit CANDU power reactor. The main component would consist of a heavy steel structure containing very large magnets that will be maintained at near absolute zero temperatures. The area in which the plasma would be created would be maintained near total vacuum conditions. The facility will also contain systems for the removal of helium ash and other particulate waste created during operations. Other major components include a cryogenic plant with compressors and magnet power supply and conversion equipment. To ensure all participants in the EA have a good appreciation of the nature and scale of this new type of nuclear project, the Members request staff to ensure the project description in the Screening Report (as required in section 9.2.1 of the EA Guidelines), is comprehensive in terms of the physical, chemical and radiological aspects and their related hazards.

ACTION

42. As a follow-up to the above request, the Members questioned staff on the state of current knowledge of likely nature of the Iiter facility effects. Staff indicated that the potential initiators of effects are familiar to CNSC staff, and include the hazards associated with tritium, activated steel, neutron radiation, high frequency electromagnetic fields, and other conventional chemical and physical hazards associated with large industrial facilities. Staff expressed the opinion that it, together with other expert reviewers in government and other specialized fields, have enough knowledge to conduct a thorough screening assessment and to develop an understanding of the types of mitigation measures required.

43. With reference to some of the public comments on the draft EA Guidelines, the Members sought clarification from staff as to whether the project could ever be used for the commercial production of electricity. Staff confirmed that the facility would be for research only. It would operate in pulse mode only and does not include the systems necessary for the removal of heat for steam production necessary to generate electricity.
44. On the matter of “need” and “alternatives to” the project, the Members require that staff modify the EA Guidelines, as set out in the decision statement in Annex C to these minutes to ensure these topics are referred to as separate issues.
45. The Members questioned staff on how independent scientific knowledge will be brought to bear in the assessment. In response, staff explained that the draft technical studies will be subjected to a detailed review by the relevant subject-matter experts in the CNSC staff and other expert federal and provincial government departments. Staff also indicated that it would engage other experts as necessary to ensure a thorough technical review.
46. The Members requested further information about the Iter Institute, and specifically its legal definition as a possible licensee and its ability to provide the appropriate financial guarantees. Staff explained that the Iter Institute is a not-for-profit corporation (without share capital) incorporated under Part II of the *Canada Corporations Act*. The corporation was formed for the purpose of initiating the CNSC licensing process and acts as a proxy for the Iter Legal Entity. Staff further explained that, if the licence is granted, the international organization would be established in its final form through a joint agreement between Japan, Russia and the European Union. Staff explained that that legal entity would be responsible for the final design, construction, ownership, operation and decommissioning of the facility, including any financial guarantees. The host country would be required to provide defined host services under contract to the international Iter legal entity. Staff expressed its satisfaction that there exists a properly constituted legal proponent for the purpose of initiating the environmental assessment and licensing process and that the technical competence of the proponent will be carefully evaluated during the EA and licensing review process.
47. With specific reference to subsection 19(d) of the CEEA *Comprehensive Study List Regulations*, the Members questioned staff on why a “comprehensive study” was not deemed necessary.

ACTION

ACTION

Staff explained that the proposed fusion facility was not a “nuclear reactor” as specified in that subsection. Staff explained that although the plasma could generate up to 500 MW, it is operated in a non-continuous pulse mode rather than in a self-sustaining power load level. Staff noted that the facility is analogous to a sub-critical assembly for doing fission research and those facilities are also not considered to be “nuclear reactors”.

48. The Members explored with staff how security issues and measures will be addressed in the EA. Staff explained that security is an important aspect of the licensing process and that no significant security deficiencies would be permitted during the operation of the facility. Staff also noted that a range of accidents and malfunctions will be examined in the EA (irrespective of the initiating cause) and that, due to the sensitivities in maintaining the plasma, and the relatively small and largely immobile radioactive inventories, such accidents and malfunctions are likely to be of low consequence. Nevertheless, the Members consider that the role of security measures in the project, and in preventing or mitigating potential environmental effects, should be generally acknowledged in the EA. As such, the Members request staff to modify sections 7.0 (Scope of the Project) and 9.2.1 (Project Description) as specified in the decision statement attached as Annex C to these minutes. The Members note that security information of a confidential or prescribed nature (as referred to in sections 21 to 23 of the *General Nuclear Safety Regulations*) will not be divulged in the Screening Report or other related public documents.

ACTION

49. With reference to section 9.2.4 of the draft EA Guidelines (Assessment and Mitigation of Environmental Effects), the Members request staff to modify the term “external natural hazards”, as set out in the decision statement in Annex C to these minutes, to be more consistent with the requirements of the CEAA.

ACTION

50. In response to the Members’ questions about the potential vulnerability of the plant to seismic events, staff explained that this will be considered in the EA and added that, due to the option of siting the facility anywhere in the world, the design ensures that the most stringent seismic qualifications in the world would be met.

51. With reference to section 9.2.6 of the draft EA Guidelines (Assessment of the Effects on Sustainability of Resources), the Members request that the text of the EA Guidelines referring to “natural resources” be modified as set out in the decision statement in Annex C to these minutes.

ACTION

52. In regard to the definition of the Regional Study Area (section 9.2.2 of the draft EA Guidelines), the Members request a wording change as specified in the decision statement attached as Annex C to these minutes.

ACTION

53. The Members request staff to modify the reference to the decommissioning plan in section 7.0 of the draft EA Guidelines as set out in the decision statement attached as Annex C to these minutes.

ACTION

54. Citing public concerns about the cost of the project, the Members queried staff on who would bear the costs of the EA. In response, staff explained that the proponent will bear all of the costs of the EA and licensing process through the CNSC cost recovery mechanisms.

55. The Members, citing a public concern about the required supply of tritium to the facility, questioned staff on whether this could ultimately be a factor in promoting the continued operation or development of new CANDU fission reactors. Staff expressed the opinion that, even without future CANDU operations, the current supply of waste tritium from the Canadian power reactors would be more than sufficient for the life of the Iter facility.

56. The Members asked staff how the electro-magnetic fields will be addressed in the EA. Staff responded that this will form an important part of the assessment and that the relevant experts in Health Canada will be assisting.

57. The Members asked staff about the type and amount of waste that will be generated and how it will be handled. Staff remarked that the facility will produce small amounts of radioactive waste during operations. Staff noted that upon decommissioning, large steel components will have become activated. Those components will need to be stored for several decades before they can be recycled. The activation products will be fixed in the material and not dispersible in the environment.

58. The Members noted that the proposed EA Guidelines do not appear to provide the proponent with direction on the specific technical studies it will be delegated to undertake. Staff explained that the needs for specific technical studies will be identified as the environmental assessment unfolds. Staff remarked that an EA is an iterative process where information needs often evolve. Staff noted that the CEAA allows for delegation of the studies, but not the responsibility for the EA; as such, staff will continue to monitor

and manage the process closely to ensure the appropriate studies are being carried out.

59. Based on the information presented at the meeting, the Commission decided not to refer the Iter Facility project to the Minister pursuant to section 25 of the CEEA at this time, and to approve the EA Guidelines for the project (Appendix A to CMD 02-M13), pursuant to sections 15 and 16 of the CEEA, with a number of specific modifications. The details of the decision and required modifications are set out in Annex C to these minutes.

DECISION

Cameco Corporation: Exemption from Labeling IP-2 Packages Containing Uranium-ore Slurry

60. Cameco Corporation (Cameco) summarized its application for a 5-year (renewable) exemption from subsection 16(4) of the *Packaging and Transport of Nuclear Substances Regulations* (which refer to sections 440 and 442 of the *IAEA Transportation Regulations*) for its ore-slurry container shipments between the Key Lake mill and the McArthur River mine in northern Saskatchewan.
61. Cameco expressed the view that the current requirement to check the containers and affix new labels for each shipment is resulting in unnecessary incremental doses to personnel (approximately 40 m/Sv.a between two workers).
62. Cameco explained its proposal to affix to each visible surface of the containers, in addition to the placard required by the *Transport of Dangerous Act*, a non-conforming placard which contains generic information on the contents and nominal grade concentration of Cl_3O_8 . Cameco expressed the view that this would meet the spirit and intent of the labeling while reducing radiation exposures.
63. Cameco noted a number of other mitigating factors, including: strict public access controls; warning signage on the road; strictly enforced speed limits; verbal reminders to all road users; radio notification of truck drivers; trained emergency response teams; and periodic public information sessions in the local communities.
64. Staff reported that it considers Cameco's proposal satisfies all of the exemption provision requirements of section 11 of the *General Nuclear Safety and Control Regulations* for the granting of an exemption under section 7 of the NSCA.

65. The Members questioned Cameco on whether they considered using aboriginal languages on the placards. Cameco responded that this was not considered necessary and that the radiation warning trefoil is well recognized.
66. Referring to the proposed nominal concentration of $\leq 30\%$ U_3O_8 to appear on the non-conforming placard, the Members questioned Cameco on the accuracy of this estimate. Cameco responded that the 30% is considered a maximum and that corporate instructions are to keep the actual concentrations below 25%. Cameco noted that it is theoretically possible that the 30% level could be slightly exceeded on rare occasions.
67. The Members questioned Cameco as to how it proposes to monitor the appropriateness of the exemption over time if granted. Cameco indicated that it would take account of the number of emergencies responded to and offered to report back to the Commission, possibly at the time Cameco appears before the Commission for a licensing hearing on the Cigar Lake Project. In response to a follow-up question from the Members, staff indicated that, given the routine compliance and radiation protection monitoring that CNSC staff would continue to exercise, staff did not consider there would be any benefit in having Cameco reporting back to the Commission.
68. The Members questioned staff on the possible applicability of similar exemptions in other situations. Staff responded that the proposed exemption is appropriate in this unique situation and would not be applicable for transportation routes with uncontrolled public access. Staff noted that each application for exemption would be assessed individually.
69. On the proposed 5-year length of the exemption, staff expressed the view that the exemption should be for an indefinite period.
70. Based on the information presented, the Members deliberated on the application for exemption and decided to grant the exemption for an indefinite period. The decision is set out in detail in Annex D to these minutes.

DECISION**Status Report on Power Reactors**

71. Staff reported a period of generally normal operation.

72. Staff noted that there has been further unplanned shutdown at Point Lepreau as a result of human error. Staff further reported that NB Power has nearly completed a third party review of earlier recent unplanned shutdowns of the Point Lepreau station and that staff expect to receive the report following the requisite quality review by NB Power. Further information to the Commission may be forthcoming.

Status Report on Atomic Energy of Canada: Approval to Restart Commissioning of the MAPLE 1 and 2 Reactors

73. Staff presented a status report on nine remaining prerequisites to the recommencement of commissioning at the MAPLE 1 and 2 reactors. All items remain ongoing.
74. Staff reported that, on the matter of the required in-reactor testing of the shut-off rods, the rods failed to poise on several occasions (i.e., the rods could not be raised out of the safe, in-reactor position). In response to questions from the Members on this development, AECL representatives indicated that the problem may be associated with some observed galling of the bearing on which the piston rod slides, but that it is too early at this stage to draw conclusions. Other potential causes are being investigated. Staff indicated that it will provide a further update in the status report planned for the April 2002 Commission Meeting.
75. Referring to an apparent lack of communication between AECL and CNSC staff in the past, the Members sought AECL's view on the current state of understanding. AECL responded that AECL and CNSC staff have met recently on several occasions to define action plans, schedules and acceptance criteria. AECL expressed the view that there has been good progress made in understanding the issues and how to resolve them. Staff confirmed that progress has been good and that several issues are near resolution.

ACTION

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

76. Staff presented a status report on eight remaining prerequisites to the commencement of active commissioning at the New Processing Facility at Chalk River Laboratories. All items remain ongoing except that which deals with the modifications to the Central Off-Gas Delay System; this item was recently closed.

77. In response to a question from the Members, AECL confirmed its understanding of, and agreement with, the remaining issues identified in the staff's status report.

New Staff Approach to Recommending Licensing Periods

78. Staff presented for information a document titled, *Staff Guide on Making Recommendations to the Commission and to Designated Officers on Licence Periods*. Staff indicated that this is one of several initiatives for improving the effectiveness, efficiency and transparency of the regulatory processes at CNSC, and to align them more closely with international practice. Staff proposes to begin implementing the guide for the Commission hearings on June 27, 2002. Other closely related initiatives are the licensee performance rating system and the compliance program discussed at previous Commission meetings.
79. Staff expressed the view that the new guide for proposing licence lengths would facilitate:
- the reallocation of resources from licensing to compliance activities;
 - the alignment of licensing with the timing of facility life-cycles and compliance programs;
 - the consideration of all relevant data for a performance period;
 - the better analysis of performance trends; and
 - the use of regular performance reporting to ensure licensees address issues of concern.
80. The Members noted that regardless of the licence terms issued by the Commission, the Commission would retain the ability to take licensing action on its own initiative at any time pursuant to section 25 of the NSCA. Furthermore, the Commission would retain the discretion to fix any licence term that it considers appropriate at the time of the granting or renewal of a licence. The Members emphasized that the onus will rest on licensees and proponents to earn a longer licence term.
81. The Members expressed their desire for continued periodic face-to-face interaction with licensees and the public on the performance of nuclear facilities and questioned staff as to how this could be achieved if licence terms become longer than the current typical 2-year period. Staff suggested that the mechanism for such interaction could be linked to staff's proposed interim performance reporting. Staff noted that the Commission may wish to make provisions for attendance of licensees and other stakeholders at the

proceedings in which those interim reports are presented.

82. To ensure the proposed approach takes account of the views of the industry, public and other stakeholders, the Members requested staff to consult with and consider the views of other interested parties on the staff proposal and report back to the Commission at a future meeting. Staff is also to consider and recommend the means by which stakeholders would continue to have the ability to express their views to the Commission at an appropriate frequency.

ACTION

83. In response to further questions from the Members, staff explained that the proposed approach to recommending licence length is based on a risk-informed process similar to that now being used in other areas of CNSC regulatory affairs. Staff also confirmed that systematic Periodic Safety Reviews (PSR) could be used as an input, particularly where greater than a 5-year term is proposed for a major facility. Staff noted that although formal PSRs (following the IAEA Standard) may be only appropriate for large facilities, such as power reactors, similar approaches could be considered for other types of facilities.

Status of the Proposed Nuclear Fuel Waste Act

84. Staff presented an overview of the purpose and status of Bill C-27 concerning the proposed *Nuclear Fuel Waste Act*. Staff explained that the Bill represents the Government of Canada's response in 1998 to the *Nuclear Fuel Waste Management and Disposal Concept Environmental Assessment Panel* (Seaborn Panel) and that it is intended to provide the legal framework for how the Governor in Council will make a decision on the management of nuclear fuel waste in Canada.

85. Staff reported that the Bill completed third reading in Parliament on February 26, 2002 and will be referred to the Senate. It is anticipated that the Senate Standing Committee on Energy, the Environment and Natural Resources will consider the matter in March 2002.

86. Staff further explained that the CNSC has no direct role in the Bill, but will ultimately have the responsibility for considering the licensing for the proposed facility(ies), including for the conduct of any environmental assessments of that facility(ies) under the *Canadian Environmental Assessment Act*.

87. The Members commented on the proposed structure of the Waste Management Organization (WMO - which includes the power utilities responsible for generating the waste and paying for its disposal), and questioned if this was a model that could adequately reflect the interests of the public. A representative of NRCan (Ms. C. Letourneau) responded that, although the WMO would be evaluating the options, the Government of Canada will make the final decision. CNSC staff also remarked that the Bill, if passed, will require the WMO to consult extensively with the public.
88. The Members also expressed concern about the fact that the Commission and its staff have not been extensively involved to this stage and questioned about how this could ultimately affect the authority of the Commission later at a licensing stage. Staff responded that it would be closely monitoring the process to ensure no aspect of the Commission's authority would be fettered by the process. Staff further noted that it would likely be possible for the WMO, if created, to appear before the Commission to answer questions periodically. The Members requested staff to maintain close liaison with NRCan through the remainder of the legislative process and beyond if implemented. The Members noted that the CNSC's knowledge of, and responsibility for, the security of facilities and materials will be of particular importance in that regard.
89. With regard to the financing of the proposal, staff explained that a trust fund would be created and maintained by the WMO. The member power utilities and other generators of nuclear fuel waste will be required to make regular payments to the trust fund. Staff also noted that any financial guarantees that the Commission may require upon licensing would take into account the amount accumulated in the trust fund.
90. The Members requested staff to keep the Commission informed of any significant developments in regard to Bill C-27.

ACTION

Closing

91. The meeting continued in camera at 3:55 p.m. March 1, 2002.

Chair

Recording Secretary

Secretary

ANNEX A

CMD	DATE	File No.
02-M7	2002-01-21	(1-3-1-5)
Notice of meeting		
02-M8	2002-02-13	(1-3-1-5)
Agenda of the meeting of the Canadian Nuclear Safety Commission to be held in the in the Public Hearing Room, 14th floor, 280 Slater Street, Ottawa, Ontario, Friday, March 1, 2002 beginning at 8:30 a.m.		
02-M8.A	2002-02-13	(1-3-1-5)
Update - Agenda of the meeting of the Canadian Nuclear Safety Commission to be held in the in the Public Hearing Room, 14th floor, 280 Slater Street, Ottawa, Ontario, Friday, March 1, 2002 beginning at 8:30 a.m.		
02-M9	2002-02-12	(1-3-1-5)
Minutes of the Meeting of the Canadian Nuclear Safety Commission held January 17, 2002.		
02-M10	2002-02-12	(1-3-1-5)
Significant Development Report no. 2002-2.		
02-M11	2002-01-28	(26-1-7-16-1)
Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Information and Recommendation of Canadian Nuclear Safety Commission Staff.		
02-M11.A	2002-02-12	(26-1-7-16-1)
Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Information and Recommendation of Canadian Nuclear Safety - Commission Staff - Supplementary Information.		
02-M11.1	2002-02-27	(1-3-1-7)
Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Written Submission from Kathy Walker.		
02-M11.2	2002-02-07	(1-3-1-7)
Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Written Submission from Integrated Energy Development Corp.		

02-M11.3 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Written Submission from Kristen Ostling.

02-M11.4 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Written Submission from Canadian Agra Corporation.

02-M11.5 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Written Submission from Phillip Penna.

02-M11.6 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Written Submission from Walter and Phyllis Robbins.

02-M11.7 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Restart of Units 3 and 4 at Bruce "A" - Written Submission from Paul Candiago.

02-M12 2002-01-18 (1-1-19-0)

A flexible, rational approach to making recommendations to the Commission and Designated Officers on licence periods - Information from Canadian Nuclear Safety Commission Staff.

02-M12.A 2002-01-18 (1-1-19-0)

A flexible, rational approach to making recommendations to the Commission and Designated Officers on licence periods - Information from Canadian Nuclear Safety Commission Staff - Supplementary Information.

02-M13 2002-01-25 (35-1-0-0)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Iter Facility. Information and Recommendations of Canadian Nuclear Safety Commission Staff.

02-M13.1 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Iter Facility. Written submission from The Iter International Fusion Energy Institute.

02-M13.2 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Iter Facility. Written submission from the Corporation of the Municipality of Clarington.

02-M13.3 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Iter Facility. Written submission from Jeff Brackett.

02-M13.4 2002-02-18 (1-3-1-7)

Recommendation for the Approval of the Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the Iter Facility. Written submission from Sierra Club of Canada - Nuclear Campaign.

02-M14 2002-02-12 (1-3-1-5)

Cameco Corporation: Exemption from labelling IP-2 packages containing Uranium ore - Information from Canadian Nuclear Safety Commission Staff.

02-M14.1 2002-02-12 (1-3-1-5)

Cameco Corporation: Exemption from labelling IP-2 packages containing Uranium ore - Information from Canadian Nuclear Safety Commission Staff.

02-M14.1A 2002-02-18 (1-3-1-5)

Cameco Corporation: Exemption from labelling IP-2 packages containing Uranium ore - Information from Canadian Nuclear Safety Commission Staff - Supplementary Information.

02-M15 2002-02-09 (1-3-1-5)

Status Report on Power Reactors.

02-M16 2002-02-12 (26-1-62-0-0)

Atomic Energy of Canada Limited: Approval to Restart Commissioning of the MAPLE 1 and 2 Reactors.

02-M17 2002-02-12 (24-1-3-0)

Atomic Energy of Canada Limited: Approval to Commence Active Commissioning of the New Processing Facility.

02-M18 2002-02-12 (37-0-0-0)

Status of the Proposed Nuclear Fuel Waste Act, and its implications for the CNSC.

Canadian Nuclear Safety Commission

March 1, 2002

MEETING

Agenda item 5.1 CMD 02-M11 (Bruce Power – Environmental Assessment)

The Canadian Nuclear Safety Commission is satisfied at this time that the project does not warrant a referral, pursuant to section 25 of the *Canadian Environmental Assessment Act*, to the Minister of the Environment for his referral to a mediator or a review panel.

Pursuant to section 15 of the *Canadian Environmental Assessment Act*, the Canadian Nuclear Safety Commission determines that the *scope of the project* to which the environmental assessment is to be conducted is as described in the Environmental Assessment Guidelines appended to CMD 02-M11, modified as follows:

- The second sentence of the description of the scope of the Bruce A project in section 7.0 is modified to read as,
 - “This involves certain on-site physical systems and buildings, land and infrastructure of the Bruce A facility, including: the nuclear steam supply system; the turbine generator system; the electric power systems; the nuclear safety systems; ancillary systems; facilities and systems for maintaining the security of the site (excluding prescribed information); and all on-site maintenance and materials and waste handling activities associated with the Bruce A licence.”

- Under the heading “General Information, Design Characteristics and Normal Operations” in section 9.2.2 (Project Description), the fifth bullet is modified to read as,
 - “the key components of the plant (following completion of any upgrade work) and its physical security systems (excluding prescribed information), designed specifically to isolate the project from the surrounding environment, or to prevent, halt or mitigate the progress or results of malfunctions and accidents;”

Pursuant to subsection 16(3) of the *Canadian Environmental Assessment Act*, the Canadian Nuclear Safety Commission determines that the ***scope of the factors*** to be taken into consideration in the environmental assessment of the project are as described in the Environmental Assessment Guidelines appended to CMD 02-M11, modified as follows:

- References to a “conceptual decommissioning plan” in section 7.0 (Scope of the Project) and section 9.2.2 (Spatial and Temporal Boundaries of the Assessment) are replaced with references to a “preliminary decommissioning plan”.
- The last sentence in section 9.2.1 (Purpose of the Project) is replaced with,

“Responding to the question of the need for the electricity to be generated would involve consideration of broader public policy issues over which CNSC has no regulatory authority, and other political and economic processes exist to address this matter. It is also not a mandatory requirement that an assessment under the CEAA address the issue of the need for the project. Similarly, the separate questions of alternatives to generating that electricity, or alternative methods of generating that electricity, are matters beyond the mandate and control of the CNSC and are not required to be assessed in an assessment under the CEAA.”
- The second sentence in the description of the Regional Study Area in section 9.2.3 (Spatial and Temporal Boundaries of the Assessment) is modified to read as,

“It is defined as the area wherein there is at least the potential for cumulative environmental effects.”
- The subheading, “Assessment of Effects of External Natural Hazards on the Project” in section 9.2.5 is modified to read as, “Assessment of the Effects of the Environment on the Project”.
- The first sentence of the above re-titled subsection (Assessment of the Effects of the Environment on the Project) is modified to read as,

“The assessment must also take into account how the environment could adversely affect the project; for example, from severe weather or seismic events.”

- The heading of section 9.2.7 (Assessment of the Effects on Sustainability of Resources) is modified to read, “Assessment of the Effects on the Capacity of Renewable and Non-renewable Resources”.

- The first paragraph of section 9.2.7 (re-titled as above) is modified to read as,

“The assessment must also take into account whether the likely project-related environmental effects will impact on the capacity of renewable and non-renewable resources to meet the needs of the present and those of the future.”

Canadian Nuclear Safety Commission

March 1, 2002

MEETING

Agenda item 5.2 **CMD 02-M13 (Iter – Environmental Assessment)**

The Canadian Nuclear Safety Commission is satisfied at this time that the project does not warrant a referral, pursuant to section 25 of the *Canadian Environmental Assessment Act*, to the Minister of the Environment for his referral to a mediator or a review panel.

Pursuant to section 15 of the *Canadian Environmental Assessment Act*, the Canadian Nuclear Safety Commission determines that the *scope of the project* to which the environmental assessment is to be conducted is as described in the Environmental Assessment Guidelines appended to CMD 02-M13, modified as follows:

- The second sentence of section 7.0 (Scope of the Project) is modified as,

“These include: the tokamak complex; the diagnostic and fast charge resistors and capacitors buildings; the hot cell building; the low level radwaste building; the personnel access control building; the pulsed power supply complex; the steady-state power supply complex, the cryoplant complex, the laboratory support complex, the utility tunnels and service structure; the control complex; the on-site cooling water system, administrative and support facilities, and the facilities and systems for maintaining the security of the site (excluding prescribed information).”

- The following sentence is added to the second paragraph of section 9.2.1 (Project Description),

“Because this project is unique and involving a technology for which regulators and the public have little past practical experience, the project description will be a thorough description of the operational, physical, chemical and radiological characteristics of the facility. Furthermore, the project description will include a detailed introduction to the Iter Institute, including its ownership, organization, structure and technical capabilities.”

- Under the heading “Construction and Normal Operations” in section 9.2.1 (Project Description), the fourth bullet is modified to read as,

“the key components of the facility and its physical security systems (excluding prescribed information) that are relevant to management of malfunctions and accidents that may occur during the siting and construction activities, and during the subsequent operations;”

Pursuant to subsection 16(3) of the *Canadian Environmental Assessment Act*, the Canadian Nuclear Safety Commission determines that the ***scope of the factors*** to be taken into consideration in the environmental assessment of the project are as described in the Environmental Assessment Guidelines appended to CMD 02-M13, modified as follows:

- The last sentence in section 9.2.1 (Project Description) is replaced with,

“Responding to the question of the need for the research would involve consideration of broader public policy issues over which CNSC has no regulatory authority, and other political and economic processes exist to address this matter. It is also not a mandatory requirement that an assessment under the CEAA address the issue of the need for the project. Similarly, the separate questions of alternatives to conducting the research, or alternative methods of carrying out the research, are matters beyond the mandate and control of the CNSC and are not required to be assessed in an assessment under the CEAA.”

- The first sentence in the description of the Regional Study Area in section 9.2.2 (Spatial and Temporal Boundaries of the Assessment) is modified to read as,

“the Regional Study Area is defined as the area wherein there is at least the potential for cumulative and socio-economic effects, and is bounded by the Durham County line in the west, Highway 28 in the east, and Highways 47 and 7A in the north, together with the immediate area of Peterborough and near shore areas and those areas of Lake Ontario where there is a potential for cumulative environmental effects.”

- The subheading, “Assessment of Effects of External Natural Hazards on the Project” in section 9.2.4 is modified to read as, “Assessment of the Effects of the Environment on the Project”.

- The first sentence in the above re-titled subsection (Assessment of the Effects of the Environment on the Project) is modified to read as,

“The assessment must also take into account how the environment could adversely affect the project; for example, from severe weather or seismic events.”
- The heading of section 9.2.6 (Assessment of the Effects on Sustainability of Resources) is modified to read as, “Assessment of the Effects on the Capacity of Renewable and Non-renewable Resources”.
- The first paragraph of section 9.2.6 (re-titled as above) is modified to read as,

“The assessment must also take into account whether the likely project-related environmental effects will impact on the capacity of renewable and non-renewable resources to meet the needs of the present and those of the future.”

Canadian Nuclear Safety Commission

March 1, 2002

MEETING

Agenda item 5.3 CMD 02-M14 (Cameco – Exemption from Labelling IP-2 Packages)

The Commission, pursuant to section 7 of the *Nuclear Safety and Control Act*, exempts Cameco Corporation of Saskatoon, Saskatchewan, from the application of the requirement in the *Packaging and Transport of Nuclear Substances Regulations*, subsection 16(4), to act in accordance with paragraphs 440 to 442 of the *IAEA Regulations*.

This exemption applies to the “exclusive use” road transport of uranium ore slurry (LSA-II) in ore-slurry Type IP-2 packages between the McArthur River and Key Lake uranium mining facilities. This exemption is conditional on each ore-slurry transport package carrying two placards on each of the three visible lateral sides of the package as indicated in Cameco Corporation’s proposal contained in CMD 02-M14.1.

This exemption is valid for an indefinite period.