

Record of Proceedings, Including Reasons for Decision

In the Matter of

Proponent Ontario Power Generation Inc.

Subject Environmental Assessment Guidelines (Scope of Project and Assessment) for the Proposal to Place Pickering A Units 2 and 3 into a Guaranteed Defuelled State

Hearing Date June 17, 2008

RECORD OF PROCEEDINGS

Proponent: Ontario Power Generation Inc.

Address/Location: 1675 Montgomery Park Road, Box 160, Pickering, ON L1V 2R5

Purpose: Environmental Assessment Guidelines (Scope of Project and Assessment) for the proposal to place Pickering A Units 2 and 3 into a Guaranteed Defuelled State

Application received: December 18, 2007

Date of hearing: June 17, 2008

Location: Canadian Nuclear Safety Commission (CNSC), 280 Slater St., Ottawa, Ontario

Members present: M. Binder, Chair

Secretary: K. McGee
Recording Secretary: M. Young

Date of Release of Decision: June 24, 2008

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Introduction

1. Ontario Power Generation Inc. (OPG) has notified the Canadian Nuclear Safety Commission¹ (CNSC) of its intention to place Units 2 and 3 of its Pickering A Nuclear Generating Station (NGS) into a Guaranteed Defuelled State (GDS). Pickering A NGS Units 2 and 3 are currently in a Guaranteed Shutdown State (GSS), and placing them in GDS would ensure that these units cannot be returned to service. The Pickering A NGS is located in Pickering, Ontario.
2. To achieve the GDS, OPG proposes to:
 - permanently relocate the reactor building containment boundaries for Units 2 and 3;
 - separate Units 2 and 3 from the Emergency Coolant Injection (ECI) System;
 - move vacuum building alarms and annunciations from Unit 2 to Unit 1;
 - manage small quantities of radioactive and conventional waste;
 - de-energize and isolate the moderator system, including draining and flushing of the moderator; and
 - de-energize and isolate the primary heat transport system, including draining and drying of the heat transport system.
3. In addition to the above physical changes to implement the GDS, OPG proposes to request amendments to the current Pickering A operating licence to:
 - allow Units 2 and 3 to remain in GDS and to permanently remove reference to the GSS; and
 - permanently remove the requirement for licensed staff to be in Units 2 and 3.
4. The GDS proposal, if approved, would be authorized by the Commission by approvals and amendments of OPG's existing power reactor operating licence PROL 04.06/2010.
5. Before the Commission is able to make licensing decisions pursuant to the *Nuclear Safety and Control Act*² (NSCA) in respect of the proposed project, the Commission must, in accordance with the requirements of the *Canadian Environmental Assessment Act*³ (CEAA), make a decision on an environmental assessment (EA) of the proposal.
6. The proposal to place Units 2 and 3 in the GDS involves permanent modifications to the Pickering A NGS facility and relates to the operation of the Pickering A NGS facility in the proposed new configuration. Therefore, there is a 'project' as defined in section 2 of the CEAA.

¹ The *Canadian Nuclear Safety Commission* is referred to as the "CNSC" when referring to the organization and its staff in general, and as the "Commission" when referring to the tribunal component.

² S.C. 1997, c. 9.

³ S.C. 1992, c.37.

7. The amendment of a licence is a power exercised under the authority set out in subsection 24(2) of the NSCA, which is listed in the Law List Regulations established under the CEAA. Therefore, there is a 'trigger' for this proposal pursuant to subsection 5(d) of the CEAA.
8. There are no identified exclusions from the requirements for an EA for the project, pursuant to section 7 of the CEAA and Schedule I of the *Exclusion List Regulations*⁴ under the CEAA. Therefore, there is a requirement for an EA pursuant to subsection 5(1) of the CEAA.
9. The Commission is the sole responsible authority for the EA⁵. In carrying out this responsibility under the CEAA, the Commission must first determine the *scope of the project* and the *scope of the assessment*. To assist the Commission in this regard, CNSC staff prepared a draft Environmental Assessment Guidelines document (EA Guidelines). The draft EA Guidelines (*Proposed Environmental Assessment Guidelines (Scope of Project and Assessment) - Environmental Assessment of the Proposal by Ontario Power Generation to Place Pickering A Units 2 and 3 into a Guaranteed Defuelled State, Pickering, Ontario*) contains draft statements of scope for the approval of the Commission. The draft EA Guidelines also contain recommendations and instructions for the approach to be used in completing the EA, including recommendations regarding the nature of further public and stakeholder consultations. The draft EA Guidelines are presented in the CNSC staff document CMD 08-H125.

Issues

10. In considering the EA Guidelines, the Commission was required to decide, pursuant to subsections 15(1) and 16(3) of the CEAA respectively:
 - a) the *scope of the project* for which the EA is to be conducted; and
 - b) the *scope of the factors* to be taken into consideration in the conduct of the EA.
11. The Commission also considered whether it would, at this time, recommend to the federal Minister of the Environment, pursuant to section 25 of the CEAA, to refer the project to a mediator or a review panel.
12. Furthermore, the Commission undertook to decide whether or not the Commission's consideration of the completed EA Screening Report (Screening Report) would be by way of a public or closed hearing held by the Commission.

⁴ S.O.R./94-639.

⁵ Responsible Authority in relation to an EA is determined in accordance with subsection 11(1) of the CEAA.

Hearing

13. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission to review the application. The Commission, in making its decision considered information presented for a hearing held on June 17, 2008 in Ottawa, Ontario. The hearing was conducted in accordance with the Commission's process for determining matters under the CEAA⁶. The hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*⁷. During the hearing, the Commission considered written submissions from CNSC staff (CMD 08-H125) and OPG (CMD 08-H125.1).

Decision

14. Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*,

the Canadian Nuclear Safety Commission, pursuant to sections 15 and 16 of the CEAA, approves the *Proposed Environmental Assessment Guidelines (Scope of Project and Assessment) - Environmental Assessment of the Proposal by Ontario Power Generation to Place Pickering A Units 2 and 3 into a Guaranteed Defuelled State, Pickering, Ontario*.

15. The Commission also decides that it will not, at this time, refer the project, pursuant to section 25 of the CEAA, to the federal Minister of the Environment for his referral to a mediator or review panel.
16. The Commission decides that, pursuant to subsection 17(1) of the CEAA, the conduct of technical support studies will be delegated to OPG.
17. The Commission decides that the EA Screening Report for this project will not be reviewed in the context of a public hearing. The Commission decides that it will consider the completed EA Screening Report in the context of a closed hearing of the Commission, based solely on written submissions.

⁶ The Commission decided (ref. Minutes of Commission Meeting held on March 23, 2005) that, unless otherwise specified, Commission will not hold public hearings in respect of its decisions on the scope of environmental assessments to be conducted pursuant to the CEAA. The CNSC staff process for engaging the public and other stakeholders in the preparation of the draft EA Guidelines for presentation to the Commission at a non-public hearing is normally sufficient at this early stage in the EA process.

⁷ S.O.R./2000-211.

Issues and Commission Findings

Type of Environmental Assessment Required

Screening vs. Comprehensive Study, Review Panel or Mediation

18. The project is not of a type identified in the *Comprehensive Study List Regulations*⁸. Therefore, pursuant to subsection 18(1) of the CEAA, the CNSC is required to ensure that a screening environmental assessment of the project is performed and a Screening Report is prepared before the Commission can make a licensing decision under the NSCA to allow the project to proceed in whole or in part.
19. Other available types of assessment under the CEAA are a review panel or mediation appointed by the federal Minister of the Environment. To initiate either of these alternative assessment processes, the Commission would need to refer the project to the Minister pursuant to section 25 of the CEAA. In this regard, CNSC staff stated in its submissions that it is not aware at this time of any potentially significant environmental effects or public concern associated with this project which, in its opinion, would warrant having the project referred to a mediator or review panel.
20. Based on the information received, the Commission concludes that a Screening EA of the project is required pursuant to the CEAA. The Commission further decides that, at this time, it will not refer the project to the Minister of the Environment for referral to a mediator or a review panel.

Consultations on the Draft EA Guidelines

21. As part of its review of the adequacy of the draft EA Guidelines and, in particular, to assess the level of public concern about the project for the purpose of considering the aforementioned options for mediation or review panel, the Commission took account of the views of the public and other stakeholders. In this regard, the Commission considered whether the consultations carried out thus far by CNSC staff and the proponent provided the public and other stakeholders with adequate opportunity to become informed and express their views about the EA.

Public Consultation

22. With respect to public consultation on the draft EA Guidelines, CNSC staff reported that it had established a public registry for the assessment as required by Section 55 of the CEAA, including the identification of the EA in the Canadian Environmental Assessment Registry (CEAR).

⁸ S.O.R./94-638.

23. CNSC staff stated that throughout the EA process, milestone activities will be posted on the CEAR website.
24. CNSC staff further stated that OPG provides regular updates to key stakeholders on activities at the Pickering A NGS, including the GDS proposal, via newsletters to residents and meetings with local community committees.

Government Consultation

25. CNSC staff reported that, in accordance with the *CEAA Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements*⁹, CNSC staff identified Health Canada, Natural Resources Canada and Environment Canada as Federal Authorities (FAs). CNSC staff noted that no other federal departments identified themselves as Responsible Authorities for the EA, or as expert FAs for the purpose of providing technical assistance. As CNSC staff has the appropriate expertise in-house to evaluate this EA, no further input will be sought from the FAs.
26. CNSC staff has also consulted the Ontario Ministry of the Environment (OMOE), which has confirmed that the Ontario *Environmental Assessment Act*¹⁰ does not apply to this project.

Conclusion on the EA Guidelines Consultation

27. CNSC staff noted that all comments received during the above consultations were taken into consideration in the preparation of the draft EA Guidelines.
28. The Commission is satisfied that the public and other stakeholders have been adequately consulted during the preparation of the draft EA Guidelines. The Commission is satisfied that CNSC staff has taken an active role in consulting the public. The Commission is satisfied that, for the purpose of considering whether to refer the project to the Minister for a review panel or mediation, it had sufficient information to assess the current level and nature of public concern about the project.

Process for Environmental Assessment Screening Report

29. The Commission determines the process to be followed with respect to the EA Screening Report, including whether the EA Screening Report would be reviewed in the context of a public hearing of the Commission.

⁹ S.O.R./97-181.

¹⁰ R.S.O. 1990, c.E18.

30. CNSC staff recommended that the EA Screening Report be considered by the Commission in the context of a closed hearing based solely on written submissions.
31. Based on CNSC staff's recommendation and considering the level of public interest for this project, the Commission decides that the EA Screening Report for this project will not be reviewed in the context of a public hearing. The Commission decides that it will consider the completed EA Screening Report in the context of a closed hearing of the Commission, based solely on written submissions.

Scope of the Project

32. "Scope" under the CEAA is expressed in two parts: the *scope of the project* (i.e., the physical works and activities proposed) and the *scope of assessment* (i.e., the scope of the factors to be considered in assessing the effects of the project). This section addresses only the issues relating to the *scope of the project*. The issues related to the *scope of assessment* are discussed below in the section entitled Scope of the Assessment.
33. CNSC staff stated that in establishing the scope of a project for a screening EA under the CEAA, the physical works that are involved in the proposal and any specific undertakings that will be carried out in relation to the physical works must be determined.
34. CNSC staff stated that the physical work for the proposed project is the Pickering A NGS, Units 2 and 3, and the associated infrastructure. CNSC staff further stated that the undertakings in relation to the physical work for the proposed project are:
 - permanently relocating the reactor building containment boundaries for Units 2 and 3;
 - separating Units 2 and 3 from the ECI System;
 - moving vacuum building alarms and annunciations from Unit 2 to Unit 1; and
 - managing small quantities of radioactive and conventional waste.
35. CNSC staff further stated that the following pre-requisite activities are also considered to be within the scope of the project:
 - work related to de-energizing and isolating the moderator system; and
 - work related to de-energizing and isolating the primary heat transport system.
36. Based on the information received, the Commission accepts CNSC staff's recommendations concerning the *scope of the project* and approves the definition of the project scope as set out in section 3.1 of the draft EA Guidelines without change.

Scope of the Assessment

37. The other part of “scope” under the CEAA is the *scope of the assessment* – otherwise described in the CEAA as the scope of the factors that will be considered in assessing the environmental effects of the project.
38. The scope of a screening assessment under the CEAA must include the factors set out in paragraphs 16(1)(a) to (d) of the CEAA. Other factors may be included at the discretion of the Commission under paragraph 16(1)(e) of the CEAA.
39. The mandatory factors in subsection 16(1) of the CEAA are:
 - the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
 - significance of these effects;
 - the comments from the public that are received in accordance with the CEAA and its regulations; and
 - measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project.

Temporal and Spatial Scope of the Project

40. CNSC staff stated that pursuant to section 15 of the CEAA, the CNSC must determine the scope of the factors, or the extent to which the factors in the screening need to be considered in the EA. CNSC staff stated that the scope of factors identifies the geographical, spatial and temporal boundaries of the assessment, conceptually bounded in both time and space.
41. CNSC staff stated that the spatial boundaries of the assessment include the:
 - Site Study Area, which includes the facilities, buildings and infrastructure at the Pickering A NGS;
 - Local Study Area, which includes the lands within the City of Pickering and the Town of Ajax, in an area within 3 km of the Pickering A NGS; and
 - Regional Study Area, which includes lands, communities and portions of Lake Ontario around the Pickering nuclear site that may be relevant to any wider-spread environmental effects of the project, corresponding to the 10 km emergency planning zone as identified by Emergency Management Ontario.
42. Regarding the temporal boundaries of the assessment, CNSC staff stated that the initial time frame will be the planned duration of the GDS implementation.

Conclusion on the Scope of the Assessment

43. Based on the above information and considerations, the Commission concludes that the scope of the assessment, as described in section 3 of the draft EA Guidelines, is appropriate for the purpose of the environmental assessment of the proposed project.

EA Structure and Approach

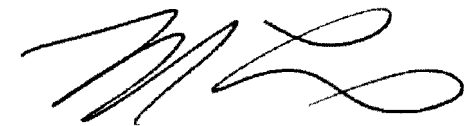
44. CNSC staff explained that the Screening Report will follow a defined structure and will include information related to:
- the application of the CEAA;
 - the scope of the assessment;
 - the project description;
 - the description of the existing environment;
 - project-specific criteria of assessment;
 - assessment and mitigation of environmental effects;
 - cumulative environmental effects;
 - significance of environmental effects; and
 - conclusions and recommendations for decision.
45. CNSC staff summarized the methodology of the assessment of the effects caused by the project. This methodology is performed following four steps: identify interactions between the project and the environment, describe the resulting changes that might occur, describe potential mitigation measures and describe residual environmental effects that will likely occur.
46. Based on the above information and considerations, the Commission is satisfied that the structure, approach, and other instructions for conducting the environmental assessment, as described in the EA Guidelines attached to CMD 08-H125, are acceptable.

Public Concern on the Project

47. CNSC staff reported that no substantive concerns have been identified.
48. Based on the above information and considerations, the Commission is satisfied that any concerns regarding the project have been properly responded to by CNSC staff.

Conclusion

49. The Commission has considered the submissions of CNSC staff as presented for reference on the record for the hearing.
50. The Commission, pursuant to sections 15 and 16 of the CEAA, approves the *Proposed Environmental Assessment Guidelines (Scope of Project and Assessment) - Environmental Assessment of the Proposal by Ontario Power Generation to Place Pickering A Units 2 and 3 into a Guaranteed Defuelled State, Pickering, Ontario*, presented in CMD 08-125.
51. The Commission decides that, pursuant to subsection 17(1) of the CEAA, the conduct of technical support studies will be delegated to OPG.
52. The Commission also concludes that, at this time, it will not refer the project to the federal Minister of the Environment for referral to a mediator or review panel in accordance with the provisions of the CEAA.
53. Furthermore, the Commission decides that the EA Screening Report for this project will not be reviewed in the context of a public hearing. The Commission decides that it will consider the completed EA Screening Report in the context of a closed hearing of the Commission, based solely on written submissions.



for Michael Binder,
President
Canadian Nuclear Safety Commission

Date of release of Decision: June 24, 2008