

Record of Proceedings, Including Reasons for Decision

In the Matter of

Proponent Ontario Power Generation Inc.

Subject Environmental Assessment Screening Report
for the Proposal to Place Pickering A Units 2
and 3 into a Guaranteed Defuelled State

Hearing Date November 28, 2008

RECORD OF PROCEEDINGS

Proponent: Ontario Power Generation Inc.

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

Purpose: Environmental Assessment Screening Report for the proposal to place Pickering A Units 2 and 3 into a Guaranteed Defuelled State

Application received: December 18, 2007

Date of hearing: November 28, 2008

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

Members present: M. Binder, Chair

Secretary: K. McGee
Recording Secretary: S. Dimitrijevic

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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. The proposed placement of Units 2 and 3 of Pickering A NGS into GDS is an undertaking in relation to a physical work. Therefore, there is a “project” as defined in section 2 of the *Canadian Environmental Assessment Act*² (CEAA). The project, if accepted, would be authorized by the Commission by amendments to the OPG’s existing power reactor operating licence PROL 04.08/2010, pursuant to subsection 24(2) of the *Nuclear Safety and Control Act*³ (NSCA). Since the amendment of a licence is listed in the *Law List Regulations*⁴ established under the CEAA, there is a “trigger” for this project pursuant to subsection 5(1)(d) of the CEAA. There are no identified exclusions for the project, pursuant to the *Exclusion List Regulations, 2007*⁵ under the CEAA. Therefore, before making a licensing decision, the Commission must make a decision on an environmental assessment (EA) of the proposal.
3. The Commission is the sole responsible authority (RA) for the EA⁶. In carrying out this responsibility under the CEAA, the Commission approved the *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*.⁷
4. The Commission decided that it would not 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. The Commission also decided that, pursuant to subsection 17(1) of the CEAA, the conduct of technical support studies would be delegated to OPG.

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. 1992, c.37.

³ S.C. 1997, c. 9.

⁴ S.O.R./94-636

⁵ S.O.R./2007-108

⁶ Responsible Authority in relation to an EA is determined in accordance with subsection 11(1) of the CEAA

⁷ *Record of Proceedings, Including Reasons for Decision*, in the matter of Ontario Power Generation Inc., held on June 17, 2008.

5. The draft Screening Report entitled “*Proposed Screening Report: Environmental Assessment of the Proposal by Ontario Power Generation to Place Pickering A Units 2 and 3 into a Guaranteed Defuelled State, Pickering, Ontario*” is presented in the CNSC staff’s document CMD 08-H137 and contains recommendations to the Commission to proceed with the consideration of the application for licence amendment that includes elements of this project under the NSCA.
6. The Commission also decided that the consideration of the completed EA Screening Report would be held in a closed session, based solely on written submissions.

Issues

7. In considering the EA Screening Report, the Commission was required to decide:
 - a) whether the Screening Report is complete;
 - b) whether the project, taking into account the mitigation measures identified in the Screening Report, is likely to cause significant adverse environmental effects;
 - c) whether the project will be referred to the federal Minister of the Environment for referral to a review panel or mediator (i.e., pursuant to paragraph 20(1)(c) of the CEAA); and
 - d) whether the Commission will proceed with its consideration of the application for a licence amendment under the NSCA (i.e., consistent with paragraph 20(1)(a) of the CEAA).

Hearing

8. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission (hereafter referred to as the Commission) to hear this matter.
9. In making its decision, the Commission considered information presented for a hearing held on November 28, 2008 in Ottawa, Ontario. The hearing was conducted in accordance with the Commission’s process for determining matters under the CEAA. During the hearing, the Commission considered written submissions from CNSC staff (CMD 08-H137) and OPG (CMD 08- H137.1).

Decision

10. Based on its consideration of the matter, as described in more details in the following sections of this *Record of Proceedings*, the Commission decides that:

- a) the Environmental Assessment Screening Report appended to CMD 08-H137 is complete. The scope of the project and assessment were appropriately determined in accordance with sections 15 and 16 of the *Canadian Environmental Assessment Act*, and all of the required assessment factors were addressed during the assessment.
- b) the project, taking into account the mitigation measures identified in the Environmental Assessment Screening Report, is not likely to cause significant adverse environmental effects;
- c) the Commission will not refer the project to the federal Minister of the Environment for his referral to a federal Environmental Assessment review panel or mediator; and
- d) consistent with paragraph 20(1)(a) of the *Canadian Environmental Assessment Act*, the Commission will proceed to consider the application for licence amendment under the provisions of the *Nuclear Safety and Control Act*.

Issue and Commission Findings

11. In making its decision, the Commission addressed the four issues identified above, under three main areas: the completeness of the Screening Report, the significance of the environmental effects and likelihood to cause adverse environmental effects, and the nature and level of public concern. The Commission's findings are summarized below.

Completeness of the Screening Report

12. In its consideration of the completeness of the Screening Report, the Commission considered whether the assessment had adequately addressed the scope of the project and assessment factors to be considered.
13. CNSC staff, in its submission, reported that OPG had submitted an Environmental Impact Statement (EIS) and Addendum to EIS, based on the approved EA Guidelines, which have been used for preparation of the Screening Report.
14. CNSC staff stated that all activities described within the proposed project had been assessed to identify those project-environment interactions that could result in measurable changes to the environment. The assessment of environmental effects and their mitigation included the potential effects of the project under normal operation and under postulated malfunctions and accidents, as well as anticipated effects of the environment on the project. The assessment also included an evaluation of the potential for cumulative environmental effects.

15. The Commission is of the opinion that the applied assessment method was adequate and that the Screening Report is complete and compliant with the requirements of the CEEA.

Likelihood and Significance of Environmental Effects

16. With respect to effects of the project on the environment, CNSC staff reported that 26 potential interactions have been identified for the following environmental components: two for atmospheric, two for aquatic and two for terrestrial environments, nine for socio-economic conditions, and eleven for radiation and radioactivity. CNSC staff stated that none of the identified interactions under normal operation were expected to result in measurable effects.
17. With respect to the effects of the project under postulated malfunctions and accidents, CNSC staff identified credible accident scenarios and available means to prevent or mitigate the possible effects. The identified scenarios included the release of radiological and non-radiological material through spills or equipment failures. One likely adverse residual effect associated with a release of moderator water has been identified. Considering limited duration and geographical extent, the residual effect of the event was determined to be minor and not significant.
18. Potential effects of the environment on the project considered in the Screening Report include seismic activity, severe weather conditions and effects of climate change on the project. It was determined that the seismic qualification of the site was sufficient to resist postulated ground motion. No residual effects were expected and no mitigation measures were identified. Thunderstorms, tornadoes, ice storms and flooding were also not expected to adversely affect the proposed project, or to cause residual effects.
19. Influence of climate change has been considered in light of the potential contribution of the project to greenhouse gas emissions and the impact of climate change on the project. Considering that there is no combustion involved in the proposed project, the greenhouse emissions would not be distinguishable from the emissions associated with regular power plant operation. The majority of the activities related to the proposed project would be indoors and would not be sensitive to climate change.
20. CNSC staff further reported that the project would not have residual adverse environmental effects to be considered in a cumulative effects assessment.
21. Based on the presented information and on the review of the Screening Report, the Commission concluded that the proposed project, taking into account the identified mitigation measures, is not likely to cause significant adverse environmental effects.

Public Concern

22. CNSC staff stated, in its submission, that, due to the nature of the GDS Project, with limited potential for environmental interactions and on a site that is well characterized, formal public consultation for documentation related to this EA were not undertaken. As required by section 55 of the CEAA, the CNSC established a public registry for the assessment that includes identification in the Canadian Environmental Assessment Registry (CEAR). Information about this EA has been posted both on the CEAR website and the CNSC website.
23. No aboriginal groups expressed an interest in this project, and no comments have been submitted by the public.
24. Based on the information received, the Commission is satisfied there is no significant uncertainty associated with the assessment of the environmental effects associated with the proposed project. The Commission is of the opinion that public concern does not warrant referral of the project to the Minister of the Environment for his referral to a review panel or mediation.

Conclusion

25. The Commission has considered the information and submissions of OPG and CNSC staff as presented in the material available for reference on the record.
26. The Commission adopts the "*Proposed Screening Report: 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 the CNSC staff document CMD 08-H137, and accepts the conclusions of the Screening Report, that the project, taking into account the mitigation measures, is not likely to cause significant adverse environmental effects.
27. Pursuant to paragraph 20(1)(a) of the CEAA, the Commission decides to proceed with the consideration of a licence amendment application under the NSCA which, if approved, would allow the project to proceed.



Michael Binder
President,
Canadian Nuclear Safety Commission

NOV 28 2008

Date