

# 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 Proposed Refurbishment and Continued Operation of Pickering B Reactors at the Pickering B Nuclear Generating Station

Hearing Date January 24, 2007

## RECORD OF PROCEEDINGS

Proponent: Ontario Power Generation Inc.

Address/Location: 700 University Avenue, Toronto, Ontario, M5G 1X6

Purpose: Environmental Assessment Guidelines (Scope of Project and Assessment) for the proposed refurbishment and continued operation of Pickering B reactors at the Pickering B Nuclear Generating Station

Application received: June 15, 2006

Date of hearing: January 24, 2007

Location: Canadian Nuclear Safety Commission (CNSC) Public Hearing Room, 280 Slater St., 14th. Floor, Ottawa, Ontario

Members present: L.J. Keen, Chair  
A. Harvey  
M.J. McDill

Secretary: K. McGee  
Recording Secretary: S. Gingras  
General Counsel: J. Lavoie

<b>Proponent Represented By</b>		<b>Document Number</b>
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<b>Intervenors</b>		
See appendix A		
<b>Others</b>		
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**Date of Decision:** January 24, 2007

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## Introduction

1. Ontario Power Generation Inc. (OPG) has notified the Canadian Nuclear Safety Commission<sup>1</sup> (CNSC) of its intention to refurbish and to continue to operate the Pickering B Units 5, 6, 7 and 8 with a view of extending their operating lives until about 2060.
2. Before the Commission is able to make licensing decisions pursuant to the *Nuclear Safety and Control Act*<sup>2</sup> (NSCA) in respect of the proposed project, the Commission must, in accordance with the requirements of the *Canadian Environmental Assessment Act*<sup>3</sup> (CEAA), make a decision on an environmental assessment (EA) of the proposal. The Commission is the sole responsible authority for the EA<sup>4</sup>.
3. 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) in consultation with other government departments, the public and other stakeholders. The draft EA Guidelines (*Environmental Assessment Guidelines (Scope of Project and Assessment) – Environmental Assessment for the Refurbishment and Continued Operation of Pickering B Reactors at the Pickering B Nuclear Generating Station*) 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 for the conduct of further public and stakeholder consultations. The draft EA Guidelines are presented in the CNSC staff document CMD 07-H2.

## Issues

4. 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.

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<sup>1</sup> In this *Record of Proceedings*, 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.

<sup>2</sup> S.C. 1997, c. 9.

<sup>3</sup> S.C. 1992, c.37.

<sup>4</sup> Responsible Authority in relation to an EA is determined in accordance with subsection 11(1) of the CEAA.

5. 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.
6. 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.

#### Public Hearing

7. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission to hear this matter.
8. In making its decision, the Commission considered information presented for a hearing held on January 24, 2007 in Ottawa, Ontario. The hearing was conducted in accordance with the Commission's process for determining matters under the CEAA<sup>5</sup>. In establishing the process, the Commission decided to hold a public hearing on the matter. During the hearing, the Commission received written submissions from CNSC staff (CMD 07-H2) and OPG (CMD 07-H2.1 and CMD 07-H2.1A). The Commission also received submissions from intervenors (see Appendix A for the list of intervenors). The hearing took place in the CNSC Hearing Room in Ottawa.

#### **Decision**

9. 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 *Environmental Assessment Guidelines (Scope of Project and Assessment) – Environmental Assessment for the Refurbishment and Continued Operation of Pickering B Reactors at the Pickering B Nuclear Generating Station*, as amended below.

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<sup>5</sup> 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.

10. The Commission modifies the EA Guidelines attached to CMD 07-H2 as follows:

In section 9.2.2, under the sub-heading “General Information, Design Characteristics and Normal Operations” beginning on page 8, the 6<sup>th</sup> bullet is changed to read as follows:

“identify and describe engineered and administrative controls, including use of an approved margin of subcriticality for safety, which would assure that the entire (out of reactor) process will be subcritical under normal and credible abnormal conditions – accidents or accident sequences – that have frequency of occurrence equal to or greater than one in a million years;”

In Appendix B, first page, comment INAC-2, the first sentence of the response is changed to read as follows:

“All of these First Nation community leaders and other mentioned organizations have been notified of this proposal and provided with a copy of the project description and of the draft Environmental Assessment (EA) Guidelines with an invitation to comment on the proposal and on the draft Guidelines.”

11. 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. The Commission notes that it may make such a referral at any time during the course of the EA process if warranted.
12. The Commission decides that it will consider the completed EA Screening Report in the context of a public hearing of the Commission.

## **Issues and Commission Findings**

### **Type of Environmental Assessment Required**

#### *Screening vs. Comprehensive Study, Review Panel or Mediation*

13. The project is not of a type identified in the *Comprehensive Study List Regulations*<sup>6</sup>. 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.

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<sup>6</sup> S.O.R./94-638.

14. 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.
15.
  - In their interventions, several intervenors disagreed with CNSC staff's recommendation and requested that the Commission refer the project to a review panel, based on the level of public concern. Refer also to the section "Public Concern on the Project" of this *Record of Proceedings* for further discussion.
16. The Commission asked CNSC staff as to how the level of public concern could be evaluated. CNSC staff answered that it established four criteria that it proposes to use in judging the level of public concern on the project and deciding whether the project should be referred to a review panel:
  - whether questions or issues raised by members of the public and stakeholders can be thoroughly addressed in a screening EA;
  - the nature of the concerns;
  - whether a panel review would provide more meaningful opportunities for the public to communicate its concerns; and
  - whether negative concern expressed is coming from a large proportion of the population living in communities that would likely be affected by the project.
17. 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. However, because the Commission may make such a referral at any time, the Commission requests that CNSC staff inform the Commission in a timely manner of any significant issues or public concerns that arise during the conduct of the EA and which may warrant further consideration of the need for a review panel or mediator.

### **Consultations on the Draft EA Guidelines**

18. 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***

19. 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.
20. OPG explained that it had built a communication program for the EA consultation, and that it considers that the program goes beyond the expected consultation requirements for a screening EA. OPG's communication and consultation activities target both the host and adjacent communities.
21. OPG further noted that its communication activities have been extensive, including print advertising in local newspapers, letters sent to over 200 community and stakeholder groups, two newsletters sent to 153,000 homes, and invitation cards for the two sets of open houses. OPG also outreached to regional groups who have an interest in the project, to the First Nations in the area, as well as to the broader community who could be interested in the project. OPG also stated that citizens in the area seemed generally satisfied with its communication activities.
22. CNSC staff confirmed that OPG was expected to consult the public on a number of project-specific items, and that OPG had initiated consultation with the public and interested stakeholders. CNSC staff also noted that OPG was delegated the responsibility to consult the public on Valued Ecosystem Components (VECs) and to keep the public informed about the project and the results of the technical studies. CNSC staff also reported that it was reviewing the draft version of OPG's Community and Stakeholder Consultation and Communication Plan for its acceptability.
23. CNSC staff provided the opportunity to the public to comment on the draft EA Guidelines. Several comments were received and dispositioned. CNSC staff also reported that it has carried out and would continue to conduct public consultation, including workshops on the environmental effects of the proposed project, mitigation measures and on the follow-up program. CNSC staff further noted that it also plans on consulting the public on the federal interpretation of the technical studies and the potential health impacts of the project.
24. The Commission asked why CNSC staff conducted these public consultation activities, instead of delegating them to OPG. CNSC staff responded that it considered that OPG was qualified to discuss the project and related technical studies, while CNSC staff would be best positioned to inform the public on the EA process, as well as on the follow-up program, mitigation measures and effects to the environment and to the health of persons.

25. In its intervention, Greenpeace Canada requested access to information regarding refurbishment outages, OPG's risk studies for Pickering B and documents relating to the safety review. S. Herne asked that all documents regarding the safety and security review of Pickering B be posted to the CNSC web site. The Off the Grid Working Group of the Ontario Public Interest Research Group (OPIRG – Toronto Chapter), as well as Safe Energy Working Group of the Ontario Interest Group, also requested the posting on the CNSC's Web site of all relevant documents on the scope and process of the environmental and safety review of Pickering B. In response to a question from the Commission on this topic, CNSC staff explained that there were some restrictions on the publication of documents on the CNSC Web site, but pointed out the existence of a registry with a complete list of documents relating to the EA that are available upon request. OPG also noted that it established a project Web site where the public can provide feedback and where all associated documents would be posted.

### ***Government Consultation***

26. CNSC staff reported that, in accordance with the *CEAA Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements*<sup>7</sup>, CNSC staff has consulted on the draft EA Guidelines, and will continue to consult during the course of the EA, with the relevant Federal Authorities (Health Canada, Environment Canada, Natural Resources Canada, the Department of Fisheries and Oceans, and Transport Canada). CNSC staff noted that no other federal departments identified themselves as Responsible Authorities for the EA, or as expert federal authorities (FA) for the purpose of providing technical assistance.
27. Greenpeace Canada, in its intervention, requested that the CNSC provide indications on whether AECL is a RA regarding this project. In response to comments requested from the Commission, CNSC staff explained that there were recent amendments to the CEAA to include AECL as a FA. However, CNSC staff will not be seeking expert advice from AECL because of potential or perceived conflicts of interest originating from AECL's potential involvement with the project.
28. CNSC staff has also consulted the Ontario Ministry of the Environment (OMOE), which has confirmed that the Ontario *Environmental Assessment Act*<sup>8</sup> does not apply to this project. However, the OMOE provided comments on the EA Guidelines, which are detailed in Appendix B of the draft EA Guidelines.

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<sup>7</sup> S.O.R./97-181.

<sup>8</sup> R.S.O. 1990, c.E18.

***Conclusion on the EA Guidelines Consultation:***

29. CNSC staff noted that all comments received during the above consultations were taken into consideration in the preparation of the draft EA Guidelines. Information on the disposition of each comment was attached as Appendix B and D of the draft EA Guidelines (attached to CMD 07-H2).
30. 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 also 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**

31. 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.
32. CNSC staff recommended that the EA Screening Report be considered by the Commission in the context of a public hearing.
33. Based on CNSC staff's recommendation and considering the level of public interest for this project, the Commission decided that the EA Screening Report for this project will be reviewed in the context of a public hearing.

**Scope of the Project**

34. "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.
35. CNSC staff recommended that the scope of the project consider refurbishment activities and activities related to the continued operation of the refurbished power reactors until about 2060, as well as the assessment of all waste management-related activities including waste reduction activities and decontamination.

36. In its intervention, Greenpeace Canada recommended that the scope of the project include other projects that are linked to or consequential with OPG's proposed project. Greenpeace Canada also expressed its concern that there was no scope for sustainable development. Similarly, Lake Ontario Waterkeeper, Great Lake United and the Toronto Chapter of the Council of Canadians also requested the inclusion of alternatives to the project. In response to the Commission's request for comments on this topic, CNSC staff explained that alternatives to the project in terms of issues such as energy efficiency and renewable resources are outside the CNSC's mandate as they deal with energy policy matters.
37. Greenpeace Canada also expressed the view that the project description contained errors and was lacking in details. OPG expressed its view that the submitted information allowed CNSC staff to assess whether the project required an EA pursuant to the CEAA. CNSC staff noted that it used the project description to determine the application of the NSCA, the CEAA and the *Federal Authorities Regulations*<sup>9</sup>. CNSC staff further noted that the proponent's Environmental Assessment Study Report (EASR) will contain a more detailed project description that would be reviewed by CNSC staff and be made available to the public.
38. In this regard, the Commission noted that further project details would be expected as this project was to move forward. Thus the Commission expresses the view that concerns voiced regarding the lack of information should be addressed as the EA process continues and more information is available.
39. The Commission enquired about a comment expressed by Lake Ontario Waterkeeper during consultation on the EA Guidelines. This stakeholder noted that the feasibility study on the project was not made available. OPG explained that it was currently working on the feasibility study in order to determine whether the refurbishment of Pickering B was a viable project. OPG also pointed out that the completed EA and the integrated safety review (ISR) of the facility, which are documents used in the feasibility study, would be useful tools in doing this determination. The Commission notes that the completed ISR would eventually be available to the public.
40. 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 7.0 of the draft EA Guidelines without change.

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<sup>9</sup> S.O.R./96-280.

### **Scope of the Assessment**

41. 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.
42. 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.
43. 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.
44. As allowed by paragraph 16(1)(e) of the CEAA, CNSC staff recommended that the CNSC would also require consideration of: the purpose of the project; consideration of traditional and local knowledge, where relevant; the need for, and requirements of, a follow-up program in respect of the project; and the capacity of renewable resources that are likely to be significantly affected by the project to meet the present and future needs.
45. OPG reported that it considered that the potential environmental effects of the project could be established with a high degree of certainty since the environmental impacts of operating Pickering B have been well established.
46. CNSC staff summarized what will be included in the EA. CNSC staff reported that a description of the Preliminary Decommissioning Plan will be required, although decommissioning is not part of the project definition. The EA would also include: an assessment of the effects of the environment on the project; an assessment of the effects of the project on the capacity of renewable and non-renewable resources; and a preliminary design and implementation plan for a follow-up program. CNSC staff further noted that additional factors or issues may be identified following consultation during the EA.

### ***Temporal and Spatial Scope of the Project***

47. CNSC staff reported that the EA Guidelines include a description of spatial and temporal boundaries of the assessment. The temporal boundaries of the assessment would be the planned duration of the project, until 2060, except where the effects of the project are anticipated to continue beyond the operation of the facility. CNSC staff noted that geographic study areas were also suggested.

48. In their interventions, Lake Ontario Waterkeeper, Citizens for Renewable Energy and Great Lakes United expressed the view that the transport of refurbishment waste through densely populated areas to the Western Waste Management Facility in Tiverton should be evaluated. Lake Ontario Waterkeeper also stated that the regional area does not reflect the area that would be impacted by a serious accident, and that broader spatial boundaries should be included.
49. In response to a question from the Commission on how the spatial limits are established, CNSC staff explained that spatial boundaries are established in the EA Guidelines as a starting point, but that determining the extent of the study is an iterative process and the limits might change as the process continues.
50. In response to further questioning from the Commission on what would be possible reasons to extend the spatial limits, OPG explained that it considers the study areas as being very flexible, and that socio-economic impacts studies or significant concerns expressed by the community could change boundaries of these study areas. Emergency Management Ontario (EMO) also reported that, based on the technical studies of accident scenarios, the Provincial Nuclear Emergency Response Plan outlines the distance beyond the facility in which protective actions may have to be taken, and thus it considered that the emergency response system in place can accommodate the entire study area.
51. In its intervention, Lake Ontario Waterkeeper expressed the view that the temporal scope should be expanded to include the timeframe necessary for the long-term storage of radioactive waste. Great Lakes United also noted that it considered the limitation of the temporal scope to 2060 to be unreasonable given the nature of the project, which involves indefinite temporary storage of nuclear waste.
52. In this regard, the Commission asked for more details concerning the timeline of the project. OPG answered that, while there are still a lot of uncertainties regarding the timeline, it does not expect the refurbishment activities to start before the year 2012. Since each unit is expected to operate for approximately 30 years after its refurbishment, and that the last unit to be refurbished would start operation in approximately year 2024, OPG expects the end of the project to be 2060.
53. The Commission notes the uncertainties related to the timeline of the project, and considers that OPG is accountable for any issues related to these uncertainties. The Commission further states that the EA should specify the regional area (including the City of Toronto) forecast to 2060, including population density and distribution. The Provincial Nuclear Emergency Response Plan should also be projected to the same dates.

### *Lake Ontario*

54. Great Lakes United, in its intervention, expressed the view that the areas impacted by drinking water contamination west of the facility should be included, and that parts of Lake Ontario potentially affected by thermal plumes and water contamination should be included in the spatial limits. Lake Ontario Waterkeeper also requested the inclusion of Lake Ontario in the EA studies. At the request of the Commission, CNSC staff explained that OPG was expected to conduct technical studies in order to properly capture and assess all environmental effects of the project, including the effects on Lake Ontario. OPG confirmed its intention of doing the studies described by CNSC staff.
55. The Commission acknowledges the importance of Lake Ontario to the local population, and the level of potential impacts of the project on this Great Lake. The Commission specifies Lake Ontario to be included in the scope of the EA.

### *Catastrophic Accidents*

56. A large number of intervenors requested that the assessment include the potential environmental and health effects of a catastrophic nuclear accident, whether being caused by technical failure, a terrorist attack or a large airplane crash. In particular, Greenpeace Canada requested that the assessment include a full discussion of programs for mitigating the impacts of such an event, as well as an adequate contemplation of threats that may cause catastrophic events. In response to the Commission's request for more details on this topic, OPG explained that the potential environmental impacts of terrorist activities were included in the evaluations and were determined not to result in any significant radiological harm. OPG added that accidents and malfunctions during the refurbishment and future operations will be considered. However, the CEAA requires only the consideration of credible accidents and malfunctions. Therefore, incidents of low probability do not need to be considered. CNSC staff noted that the proposed Guidelines indicate that information on malfunctions and accidents must be submitted by OPG and accepted by CNSC staff. This information will be available to the public.
57. The Commission asked for more information on how the probability of occurrence of one in a million, used to determine whether an accident scenario is credible, is established. OPG answered that the value used was consistent with the expectations under the CEAA. CNSC staff agreed with this value, noting that the selected frequency of an event occurring has been used for several previous EAs. CNSC staff further noted that there are accidents already studied in the probabilistic safety assessment studies, which include accidents with a probability lower than one in a million; however, these studies are not part of the EA. CNSC staff considers that the combination of accidents with the probability of one in a million, as well as their

consequences, are bounding accidents in term of assessing consequences of accidents and malfunctions for nuclear facilities.

58. The Commission notes the existence of a plan to construct an airport in the Pickering area. Because of the proximity of the possible airport to the Pickering B refurbishment project and, therefore, its potential impact on the safety of Pickering B, the Commission asks CNSC staff and the proponent to include in the EA the plans for the proposed airport and provide information on this topic during the EA Screening hearing.

### *Seismic Activity*

59. H. Wilson, A. L.E. McKee-Bennett and the National Council of Women of Canada, in their interventions, expressed concerns about the risk of earthquakes in the area. In response to information requested by the Commission on this topic, OPG explained that seismic events are part of the design basis for the ongoing operation of the plant, and that Pickering B was designed to withstand a design basis earthquake. OPG also noted the existence of ongoing monitoring studies to detect any changes in the seismic activity. CNSC staff concurred with OPG, and added that there is a requirement in the EA Guidelines proposed to the Commission to assess the impacts of seismic events on the operation of the plant and to look at the consequences for the environment. Seismic hazards will be addressed both in a general sense in the EA and in the Integrated Safety Review.

### *Climate Change*

60. Greenpeace Canada, in its intervention, suggested the inclusion in the EA of the increasing likelihood of extreme weather patterns. Citizens for Renewable Energy also expressed the view that climate change could impact all stages of the project, and that mitigation measures could be futile with unpredictable climatic events. The Commission asked for more information about the potential impacts of climate change. OPG answered that work had started on this topic, and that any severity and frequency of storm events would be included in the EA. CNSC staff concurred with OPG and explained that there is a requirement in the Guidelines to consider the impacts of climate change on the project, and that these impacts would be examined from different perspectives.

### *Population Growth*

61. The Commission requested more information on how EMO took into account the population growth in its planning for emergencies. EMO answered that population growth was assessed, as well as its impact on protective measures, particularly on evacuation. EMO also noted that it would have to review the technical reports

prepared by OPG to determine a possible requirement to reassess the Provincial Nuclear Emergency Response Plan in terms of the scenarios and the design basis that would take place during and after the refurbishment. CNSC staff also explained that it requested the assistance of EMO in terms of the off-site part of the emergency measures plan in order to properly address the potential consequences of accidents and malfunctions for the duration of the project to 2060. CNSC staff considers that this topic is a very important part of this EA because of the geographical context and the plans to operate during a significant period forward.

62. The Commission acknowledges the importance of considering population growth in this EA, based on the proximity of Pickering B to the Greater Toronto Area. Based on this consideration, the Commission instructs CNSC staff to include in the EA Screening Report an assessment of population growth to 2060 and consider the relevant impacts.

### ***Financial Guarantee***

63. In its intervention, Citizens for Renewable Energy stated that the amendment of the financial guarantee should be part of the scope of the EA. This intervenor added that no work should be permitted until the *Nuclear Liability Act*<sup>10</sup> is amended to increase the maximum amount for coverage for nuclear accidents. In response to the Commission's request for more information on this issue, CNSC staff explained that the financial guarantee for decommissioning could not be part of the EA since the impacts of the project need to be previously assessed. CNSC staff added that, regarding coverage for consequences of accidents, the *Nuclear Liability Act*<sup>10</sup> was not under the CNSC's jurisdiction.
64. The Commission notes that financial guarantee for the current OPG projects is in place, and that the Commission receives annual updates to ensure that the financial guarantee remains valid.

### ***Conclusion on the Scope of the Assessment***

65. Based on the above information and considerations, the Commission concludes that the scope of the assessment, as described in section 9 of the draft EA Guidelines, is appropriate for the purpose of the environmental assessment of the proposed project. The Commission instructs CNSC staff to include in the EA Screening Report an assessment of population growth to 2060 in the Pickering area and consider the relevant impacts.

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<sup>10</sup> R.S.C.1985, c. N-28.

### **EA Structure and Approach**

66. CNSC staff explained that the Screening Report will follow a defined structure and will include: application of the CEAA; scope of the project; scope of the assessment; project description; spatial and temporal boundaries of the assessment; description of the existing environment; assessment and mitigation of environmental effects; cumulative environmental effects; significance of residual effects; stakeholder consultation; and follow-up program.
67. 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.
68. 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 07-H2, are acceptable.

### **Public Concern on the Project**

69. OPG stated that the project was supported by local elected officials. OPG added that the level of interest in the project, including the EA, was low and typical of earlier EAs conducted at the site.
70. In its intervention, the National Council of Women of Canada was concerned that the EA process could be expedited because of pressures originating from other parties. In response to these concerns, the Commission states that it went beyond its usual process concerning this project by holding a public hearing for the EA Guidelines. The Commission notes the CNSC's mandate to protect the health and safety of the public and the environment, as the regulatory body overseeing nuclear safety and security in Canada.
71. Greenpeace Canada, in its intervention, expressed the view that the recommendations of the Senate Committee, as articulated in the 2001 Senate Report "*Canada's Nuclear Reactors: How Much Safety is Enough?*", are relevant to the current environmental and safety review. In response to a question from the Commission on the consideration of comments from the Senate Committee, CNSC staff explained that it was its practice to consider comments made by various groups, including the Senate Committee.

72. Greenpeace Canada is also of the view that the federal and provincial governments are failing to coordinate on the regulatory framework, and that no approval process should proceed until the public is made fully aware of the positions of the federal and provincial governments on the regulatory requirements relevant to new supplies of nuclear energy in Ontario.
73. As explained in more details in the “Government Consultation” section of this *Record of Proceedings*, CNSC staff did consult with the Ontario Ministry of the Environment concerning this project, as noted in paragraph 28. The Commission also notes that CNSC staff regularly consults with the proper provincial authorities whenever relevant to a project. The Commission considers that proper consultations with the provincial authorities are in place, and that adequate regulatory oversight is in place in Canada.
74. In its intervention, Greenpeace Canada also expressed concerns regarding the CNSC’s oversight of the life-extension of nuclear stations in Canada. This intervenor also expressed the view that, while the risk of a catastrophic accident is of major concern to the public, the CNSC was undertaking a review of the project that is non-transparent, incomplete, conducted by the nuclear industry (non-independent) and disconnected from the environmental review. Greenpeace Canada added that it considers that the CNSC prioritizes the business interest of the nuclear industry licensees over independent, transparent and publicly accountable oversight of the nuclear industry.
75. The Commission notes that similar concerns have also been written in Greenpeace Canada’s petition sent to the Auditor General on June 16, 2006. The Minister of Natural Resources responded to the questions in the petition in a letter dated October 27, 2006, with the input of CNSC’s staff and staff from Environment Canada and Health Canada. Several of the questions were related to the CNSC’s policies and procedures regarding the oversight of life extension of nuclear reactors. The Commission is of the view that those questions were properly and thoroughly answered by CNSC staff. The Commission considers that the regulatory process is independent, transparent and complete, and that it provides an adequate oversight of nuclear activities in Canada.
76. Based on the above information and considerations, the Commission is satisfied that the concerns regarding the project, as expressed by the intervenors and summarized in this section, have been properly responded to by CNSC staff.

### **Conclusion**

77. The Commission has considered the submissions of CNSC staff as presented for reference on the record for the hearing.

78. The Commission, pursuant to sections 15 and 16 of the CEAA, approves the (*Environmental Assessment Guidelines (Scope of Project and Assessment) – Environmental Assessment for the Refurbishment and Continued Operation of Pickering B Reactors at the Pickering B Nuclear Generating Station*)), presented in CMD 07-H2.
79. 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.
80. Furthermore, the Commission decided that the completed EA Screening Report will come before the Commission for approval at a public hearing.
81. Due to the high level of interest to this project, the Commission will consider conducting a public hearing on the EA Screening Report in the Greater Toronto Area.
82. The Commission requests CNSC staff to report to the Commission on any issues arising during the conduct of the EA that could warrant the Commission giving further consideration to the above scope and process decisions.
83. The Commission acknowledges and appreciates the presence of Emergency Management Ontario, as it provided relevant information in the course of this hearing.

Linda J. Keen,  
President  
Canadian Nuclear Safety Commission

Date of decision: January 24, 2007

Date of release of Reasons for Decision: April 3, 2007

## Appendix A – Intervenors

Intervenors	Document Number
Lake Ontario Waterkeeper, represented by L. Bowman	CMD 07-H2.2 CMD 07-H2.2A
Peter Tabuns, M.P.P., Toronto-Danforth	CMD 07-H2.3
Provincial Council of Women of Ontario, represented by M. Neil	CMD 07-H2.4
Several organizations and individuals	CMD 07-H2.5
Citizens For Renewable Energy, represented by C. Unitt	CMD 07-H2.6
Off The Grid Working Group of the OPIRG-Toronto, represented by T. Cherry	CMD 07-H2.7
Sierra Youth Coalition, represented by B. Hayes, R. Kouri and T. Murphy	CMD 07-H2.8
Greenpeace Canada, represented by S.P. Stensil	CMD 07-H2.9 CMD 07-H2.9A
Kathy B-Davies	CMD 07-H2.10
Douglas W. Marshall	CMD 07-H2.11
Dan Murray	CMD 07-H2.12
Enver Domingo	CMD 07-H2.13
Murray Cleland	CMD 07-H2.14
Kurt Koster	CMD 07-H2.15
Angela Bischoff	CMD 07-H2.16
Crystal Hawk	CMD 07-H2.17
Jamie Ker	CMD 07-H2.18
Oren Scott	CMD 07-H2.19
Debbie Suddard	CMD 07-H2.20
Norman Gillon	CMD 07-H2.21
David Berger	CMD 07-H2.22
Mark Grieveson	CMD 07-H2.23
Christine Malec	CMD 07-H2.24
Hamish Wilson	CMD 07-H2.25
Sierra Club of Canada	CMD 07-H2.26
Anne Smokorowski and Larry Smokorowski	CMD 07-H2.27
Frank R. Greening	CMD 07-H2.28
John Liss	CMD 07-H2.29
Dayle Turner	CMD 07-H2.30
Sam Saad	CMD 07-H2.31
Shawn Theriault	CMD 07-H2.32

Kathy Raddon	CMD 07-H2.33
National Council of Canada	CMD 07-H2.34
International Institute of Concern for Public Health	CMD 07-H2.35
Debbie Kirkland	CMD 07-H2.36
Karen Raddon	CMD 07-H2.37
Joy Pinto-Kamath	CMD 07-H2.38
Chriz Miller	CMD 07-H2.39
City of Toronto	CMD 07-H2.40
Julie Barker	CMD 07-H2.41
Reggie Modlich	CMD 07-H2.42
Alexandra L.E. McKee-Bennett	CMD 07-H2.43
Michelle MacDougall	CMD 07-H2.44
Liam O'Doherty	CMD 07-H2.45
Safe Energy Working Group of the Ontario Public Interest Research Group	CMD 07-H2.46
Sue Herne	CMD 07-H2.47
Great Lakes United	CMD 07-H2.48
Mary-Beth United	CMD 07-H2.49
Toronto Environmental Alliance	CMD 07-H2.50
Canadian Environmental Law Association	CMD 07-H2.51
Citizens Environment Alliance of Southwestern Ontario	CMD 07-H2.52
Women's Healthy Environments Network	CMD 07-H2.53
Green Party of Canada	CMD 07-H2.54
Kimberley Fry	CMD 07-H2.55
Kari Sattler	CMD 07-H2.56
Sierra Legal Defence Fund	CMD 07-H2.57
Karla Orantes	CMD 07-H2.58
Michel A. Duguay	CMD 07-H2.59
Phyllis Creighton	CMD 07-H2.60
Kathleen P. Chung	CMD 07-H2.61
Toronto Chapter of the Council of Canadians	CMD 07-H2.62
John-Paul Warren	CMD 07-H2.63
Janine Carter	CMD 07-H2.64
Laura White	CMD 07-H2.65