



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

# Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant Ontario Power Generation Inc.

Subject Application to Amend the Darlington Nuclear  
Generating Station Power Reactor Operating  
Licence to Reflect Updates in Documentation

Hearing  
Date April 24, 2012

## **RECORD OF PROCEEDINGS**

Applicant: Ontario Power Generation Inc.

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

Purpose: Application to amend the Darlington Nuclear Generating Station Power Reactor Operating Licence to Reflect Updates in Documentation

Application received: December 16 and 19, 2011

Date of hearing: April 25, 2012

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

Members present: M. Binder, Chair

Secretary: M. Leblanc  
Recording Secretary: D. Carrière

**Licence:** Amended

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## **Introduction**

1. Ontario Power Generation Inc. (OPG) has applied to the Canadian Nuclear Safety Commission<sup>1</sup> (CNSC) for four amendments to the Power Reactor Operating Licence for its Darlington Nuclear Generating Station (NGS) located in Clarington, Ontario. The current licence, PROL 13.17/2013, expires on February 28, 2013.
2. The changes requested by OPG would update the operating licence to reflect the most current revision of the OPG documents entitled “Station Shift Complement”, “Darlington Nuclear Generating Station Security Report” and “Darlington Nuclear Operating Policies and Principles”. OPG is also requesting an amendment to a document title referenced in the operating licence.

## Issue

3. In considering the application, the Commission was required to decide, pursuant to subsection 24(4) of the *Nuclear Safety and Control Act*<sup>2</sup> (NSCA):
  - a) if OPG is qualified to carry on the activity that the amended licence would authorize; and
  - b) if in carrying on that activity, OPG would make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

## Hearing

4. 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 April 25, 2012 in Ottawa, Ontario. During the hearing, the Commission considered written submissions from OPG (CMD 12-H112.1) and CNSC staff (CMD 12-H112).

## **Decision**

5. Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*, the Commission concludes that OPG has met the conditions of subsection 24(4) of the NSCA. Therefore,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, amends the Power Reactor Operating Licence PROL 13.17/2013 issued to Ontario Power Generation Inc. for its Darlington Nuclear Generating Station located in Clarington, Ontario. The amended licence, PROL 13.18/2013, is valid until February 28, 2013.

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<sup>1</sup> 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> Statutes of Canada (S.C.) 1997, chapter (c.) 9.

## Issues and Commission Findings

### *Qualifications and Protection Measures*

6. OPG requested (amendment #1) an update to Appendix B of the operating licence to reflect the most current revision, Revision 10, of the OPG document entitled “Station Shift Complement”. Revision 10 of this OPG document removes the position of Volunteer Emergency Response Team (VERT) and increases the requirement for Emergency Response Maintainers. CNSC staff stated that, as part of OPG’s ongoing full analysis of the minimum shift complement and of the roles of maintenance staff in an emergency situation, OPG found that the position of VERT as part of the Emergency Response Organization at the Darlington NGS is no longer required.
7. CNSC staff reported having reviewed OPG’s request and found that increasing the number of Emergency Response Maintainers by one additional member will provide the required support which was previously provided by the VERT. CNSC staff added that escorting functions of offsite emergency response teams previously provided by the VERT will be provided by increasing the Nuclear Security Officers (NSO) minimum shift complement; this minimum shift complement increase is discussed further below. CNSC staff reported having observed OPG’s validation exercise and found that OPG’s request meets the regulatory requirements.
8. In December 2011, OPG requested (amendment #2) an update to Appendix B of the operating licence to reflect the most current revision, Revision 6, of the OPG document “Darlington Nuclear Generating Station Security Report”. CNSC staff explained that OPG’s original submission for the update to the site security report did not include the increase to the NSO minimum shift complement as CNSC staff was still reviewing the accompanying VERT assessment. CNSC staff stated that OPG subsequently submitted an addendum to append to the submitted site security report to reflect the NSO increase. CNSC staff reported having reviewed both the site security report and the addendum and found them to be acceptable for reference in Licence Condition 10.1 and Appendix B.
9. OPG has requested (amendment #3) an update to Appendix B of the operating licence to reflect the most current revision, Revision 25, of the OPG document “Darlington Nuclear Operating Policies and Principles”. CNSC staff reported that Revision 25 of this document contains an update to Section 8.0 to reflect an increase in the minimum Annulus Gas System (AGS) flow rate to 2.5 L/s (from 1.64 L/s) and to reflect a reduction of the minimum time to restore adequate leak detection capability to 8 hours, from 24 hours, before requesting approval for continued operation from the Director of Operations and Maintenance. CNSC staff explained that the AGS must maintain a minimum flow rate in order to provide adequate leak detection capability. CNSC staff also explained that the increase in minimum AGS flow rate and decrease in minimum time to restore adequate leak detection takes into account unit aging and the increased need for early leak detection, and places more restrictive limits on unit operation.

CNSC staff stated that the change in the minimum time is more in agreement with the time specified in the Operating Policies and Principles of CANDU 6 units and allows for greater consistency in the operation of Canada's reactor fleet. CNSC staff reported that this OPG document meets the regulatory requirements.

10. OPG has also requested (amendment #4) that corrections be made to the title of the document referenced in Licence Conditions 8.2 and 8.3, and in Appendix B of the operating licence. CNSC staff explained that the document title for the OPG document "Derived Release Limits and Environmental Action Levels for Darlington Nuclear Generating Station" was incorrectly referenced in the licence and that these errors were made in the licence amendment process during the Abridged Hearing held in a closed session on February 7, 2012. CNSC staff reported that they agree with OPG's request to reflect the correct document title in Licence Conditions 8.2 and 8.3, and in Appendix B of the operating licence.
11. CNSC staff reported that the proposed changes to the operating licence are administrative in nature and will not adversely affect the safe operation of the Darlington NGS. CNSC staff also considers that the proposed revised documents are acceptable to reference in the operating licence.
12. CNSC staff has determined that, since the requested amendments are administrative, the changes will have no adverse impact on potential or established Aboriginal or Treaty rights. CNSC staff stated that the duty to consult does not arise.

#### **Application of the *Canadian Environmental Assessment Act***

13. Before making a licensing decision, the Commission must be satisfied that all applicable requirements of the *Canadian Environmental Assessment Act*<sup>3</sup> (CEAA) have been fulfilled.
14. CNSC staff reported that it had completed an Environmental Assessment (EA) determination. CNSC staff stated that there was no requirement for an EA pursuant to subsection 5(1) of the CEAA.

#### **Conclusion**

15. The Commission has considered the information and submissions from CNSC staff and OPG and is satisfied that the requested amendments are administrative in nature and will not adversely impact the safety of the Darlington NGS operations. The Commission is also satisfied that Aboriginal consultation is not necessary in relation to the proposed amendments.

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

16. The Commission is satisfied that all applicable requirements of the CEAA have been fulfilled.



Michael Binder  
President,  
Canadian Nuclear Safety Commission

APR 24 2012

Date