



September 20, 2006

File: N-00531 P

CD# N-CORR-00531-03717

MR. M. LEBLANC
Secretary

FILE DOSSIER	26-1-0-0-0
REFERRED TO RÉFÉRÉ À	de Sousa, M. LeBlanc, M.

Canadian Nuclear Safety Commission
280 Slater Street
Ottawa, Ontario
K1P 5S9

Dear Mr. Leblanc:

Application for a Site Preparation Licence – New Nuclear Power Generation

Enclosed with this letter is Ontario Power Generation's application for a licence to prepare a site for the future construction of a Class 1A nuclear power generating facility. Pursuant to the *Cost Recovery Fees Regulations*, also enclosed is our cheque in the amount of \$25,000 for payment of the initial application fee.

We intend to prepare the lands that are east of the current Darlington Nuclear Generating Station. The lands are within the existing site boundary and have been previously evaluated as part of the construction and operation of Darlington NGS and the Darlington Used Fuel Dry Storage Facility.

OPG possesses extensive knowledge of the site. This, together with our experience in the safe operation of our nuclear power generating stations, and the knowledge we have gained from the combined national and international nuclear facility operating experience, provides OPG with confidence that we will be able to safely construct and operate additional nuclear power generating stations from this site.

Should you have any questions, please contact Mr. Pat McNeil, Senior Vice President, Plant Life Extension Projects, at 905-839-6746, extension 5000.

Sincerely,



Jim Hankinson

Encls.



Ontario Power Generation Inc.

**Application for Approval to
Prepare a Site for the Future Construction
of a Nuclear Power Generating Facility
in the Province of Ontario
Regional Municipality of Durham, Municipality of Clarington**

September 20, 2006

Application for Approval to Prepare a Site for the
Future Construction of a Nuclear Power Generating Facility
in the Province of Ontario
Regional Municipality of Durham, Municipality of Clarington

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Application for Approval to Prepare a Site for the
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Cross Reference – Application Requirements to Application Sections	
Application Requirement	Application Section
Applicant's Name and business address (General Regulations s. 3(1)(a))	1.1
The activity to be licensed and its purpose (General Regulations s. 3(1)(b))	1.2
The name, maximum quantity and form of any nuclear substance to be encompassed by the licence (General Regulations s. 3(1)(c))	3.1
A description of any nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence (General Regulations s. 3(1)(d))	1.3
The proposed measures to ensure compliance with the <i>Radiation Protection Regulations</i> and the <i>Nuclear Security Regulations</i> (General Regulations s. 3(1)(e))	3.2 and 6.1
Any proposed action level for the purpose of section 6 of the <i>Radiation Protection Regulations</i> (General Regulations s. 3(1)(f))	3.3
The proposed measures to control access to the site of the activity to be licensed and the nuclear substance, prescribed equipment or prescribed information. (General Regulations s. 3(1)(g))	6.2
The proposed measures to prevent loss or illegal use, possession or removal of the nuclear substance, prescribed equipment or prescribed information. (General Regulations s. 3(1)(h))	6.3
A description and the results of any test, analysis or calculation performed to substantiate the information included in the application. (General Regulations s. 3(1)(i))	4.6
The name, quantity, form, origin and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed, including waste that may be stored, managed, processed or disposed of at the site of the activity to be licensed, and the proposed method for managing and disposing of that waste. (General Regulations s. 3(1)(j))	4.7
The applicant's organizational management structure insofar as it may bear on the applicant's compliance with the Act and the regulations made under the Act, including the internal allocation of functions, responsibilities and authority. (General Regulations s. 3(1)(k))	2.2
A description of any proposed financial guarantee relating to the activity to be licensed. (General Regulations s. 3(1)(l))	1.7
A description of the site of the activity to be licensed, including the location of any exclusion zone and any structures within that zone. (Class 1 Nuclear Facilities Regulations s. 3(a))	1.4
Plans showing the location, perimeter, areas, structures and systems of the nuclear facility. (Class 1 Nuclear Facilities Regulations s. 3(b))	1.5
Evidence that the applicant is the owner of the site or has authority from the owner of the site to carry on the activity to be licensed. (Class 1 Nuclear Facilities Regulations s. 3(c))	1.6
The proposed quality assurance program for the activity to be licensed. (Class 1 Nuclear Facilities Regulations s. 3(d))	2.1
The name, form, characteristics and quantity of any hazardous substances that may be on the site while the activity to be licensed is carried on. (Class 1 Nuclear Facilities Regulations s. 3(e))	4.4
The proposed worker health and safety policies and procedures. (Class 1 Nuclear Facilities Regulations s. 3(f))	2.4
The proposed environmental protection policies and procedures. (Class 1 Nuclear Facilities Regulations s. 3(g))	2.5

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The proposed effluent and environmental monitoring programs. (Class 1 Nuclear Facilities Regulations s. 3(h))	4.8
The information required by section 3 of the <i>Nuclear Security Regulations</i> . (Class 1 Nuclear Facilities Regulations s. 3(i))	6.4
The proposed program to inform persons living in the vicinity of the site of the general nature and characteristics of the anticipated effects on the environment and the health and safety of persons that may result from the activity to be licensed. (Class 1 Nuclear Facilities Regulations s. 3(j))	5
The proposed plan for the decommissioning of the nuclear facility or of the site. (Class 1 Nuclear Facilities Regulations s. 3(k))	1.8
A description of the site evaluation process and of the investigations and preparatory work that have been and will be done on the site and the surrounding area. (Class 1 Nuclear Facilities Regulations s. 4(a))	4.1
A description of the site's susceptibility to human activity and natural phenomena, including seismic events, tornadoes and floods. (Class 1 Nuclear Facilities Regulations s. 4(b))	4.3
The proposed program to determine the environmental baseline characteristics of the site and the surrounding area. (Class 1 Nuclear Facilities Regulations s. 4(c))	4.2
The proposed quality assurance program for the design of the nuclear facility (Class 1 Nuclear Facilities Regulations s. 4(d))	2.3
The effects on the environment and the health and safety of persons that may result from the activity to be licensed, and the measures that will be taken to prevent or mitigate those effects. (Class 1 Nuclear Facilities Regulations s. 4(e))	4.5

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Introduction and Description of the Application

Ontario Power Generation Inc. (OPG) is proposing to site additional Class 1A Nuclear Facilities on the property it owns in the Municipality of Clarington, in the Regional Municipality of Durham. The proposal is to site the additional reactors to the east of the current Darlington Nuclear Generating Station and the Darlington Used Fuel Dry Storage facility that is being constructed.

A specific reactor type has not been identified for the site. Technical information from various available designs will be used to develop the facility characterization necessary for the performance of the evaluations of the suitability of the site for the facility, and to assess the environmental effects that the site may have on the facility that will need to be addressed in the design.

Co-location of the new facility on the site is beneficial as the site already has been developed for Class 1 Nuclear Facilities. Considerable information on the site has been developed and submitted to the CNSC with respect to the siting and operation of the Darlington Nuclear Generating Station, and with respect to the environmental assessment and licensing of the Darlington Used Fuel Dry Storage facility. Where applicable, data from these previously licensed facilities has been used in the development of this application.

This application has been developed to respond directly to the requirements for a site preparation application contained in the *General Nuclear Safety and Control Regulations*, and the *Class 1 Nuclear Facility Regulations*. To the extent practicable, those requirements have been grouped such that related information on items such as environmental effects or security are contained in a single Chapter of the application. Sections within each Chapter respond to the required information. Each section includes a statement of the regulatory requirement that is being addressed.

Security related information has been excluded from this application as it relates both to prescribed information and to national security. A separate, Security Protected, submission will be made with respect to those portions of the application.

References internal to this application are provided by chapter and section number. References external to this application, such as studies or reports that have been previously submitted to the CNSC, are provided at the end of each Chapter.

Tables and data provided in this application are designated by use of the chapter and section number to which they apply. Where practicable, the tables and data are provided within the section, if not they are provided on independent pages as close to the section as possible.

Pagination of this application is sequential with reference to the Chapter number, for example page 1 – 1 refers to Chapter 1, page 1. The date on which the content on the page is prepared is also provided.

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When a change is made to the text in this application, those pages affected will be marked with a revision number in the footer below the date. Changes in the text or tables will be indicated with a vertical change bar in the next revision, but will be removed should subsequent changes to the pages be required. Once all necessary changes to the application have been made, a final revision will be issued that removes all indication of the changes that have been made. A summary change table that identifies the changes that have been made, together with a reference to the source of the change, is provided at the end of the application

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Chapter 1 – The Applicant, Purpose, and Site

Section 1.1	Applicant's name and business address	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(a)</i>
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Ontario Power Generation Inc. (OPG) is an Ontario-based electricity generation company whose principle business is the generation and sale of electricity in Ontario. OPG's focus is on the efficient production and sale of electricity from its generating assets, while operating in a safe, open and environmentally responsible manner. OPG was created under the *Business Corporations Act* (Ontario), and is wholly owned by the Province of Ontario.

OPG has a variety of generating assets, including hydroelectric generating stations, fossil-fuelled generating stations, and nuclear power generating stations. It also operates nuclear waste management and storage facilities. OPG's nuclear power generating stations and nuclear waste management and storage facilities are all operated in accordance with licences issued by the Canadian Nuclear Safety Commission (CNSC).

Ontario Power Generation Inc.'s business address is

700 University Avenue,
Toronto, Ontario, M5G 2X6

For purposes of this application, correspondence should be directed to:

Mr. D. Patrick McNeil
Senior Vice President
Plant Life Extension Projects

Ontario Power Generation
889 Brock Road
Pickering, Ontario
L1W 3J2

Section 1.2	The activity to be licensed and its purpose	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(b)</i>
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OPG is requesting a licence to prepare lands adjacent to the existing Darlington Nuclear Generating Station and the Darlington Used Fuel Dry Storage Facility for the future construction of up to four nuclear power reactors. The extent of construction will be determined prior to the submission of an application for a construction licence.

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OPG understands that the Site Preparation Licence, should it be granted, will declare the suitability of the site for future construction, and that the licence will not permit any construction activities, including but not limited to excavation for the purpose of foundations. OPG proposes that the studies and assessments described in this application not be prescribed by the licence.

Section 1.3	A description of any nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence.	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(d)</i>
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No nuclear facility or prescribed equipment is encompassed by the licence.

Prescribed information will be provided pertaining to the security arrangements, security equipment, security systems and security procedures that have been established by OPG for the other facilities located on the site, and how those arrangements, equipment, systems, and security procedures will be changed due to the performance of the site preparation activities.

Separate, Security Classified, communications will be submitted to the CNSC on this item.

Section 1.4	A description of the site of the activity to be licensed, including the location of any exclusion zone and any structures within that zone.	<i>Class 1 Nuclear Facilities Regulations, Section 3(a)</i>
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A description of the site has been previously provided to the CNSC in the Safety Report for the Darlington Nuclear Generating Station, the decommissioning plans for the station, and in the environmental studies performed for the environmental assessment for the licensing of the Darlington Used Fuel Dry Storage Facility. The following is a brief description based on those studies.

The site is located in the Municipality of Clarington in the Regional Municipality of Durham, in the Province of Ontario, about 60 km east-northeast of the City of Toronto. The land within 8 km of the site is primarily rural with Bowmanville being the closest urban area. The City of Oshawa, located to the west of the site, is the closest larger urban area. The southern boundary of the site is the shoreline of Lake Ontario.

Located on the Site, on lands to the west of the proposed site is the Darlington Nuclear Generating Station, a four-unit CANDU type facility. Darlington Nuclear Generating Station has been operating safely since 1990, with the last unit in service in 1993. The station is described in the Safety Report referenced in the Power Reactor Operating Licence granted by the CNSC.

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Also located on the site is the Darlington Used Fuel Dry Storage Facility (DUFDSF). The DUFDSF is currently under construction, and will be completed prior to the commencement of construction of the potential new nuclear power generating facilities.

There are no existing structures located on the land specifically under consideration in this application for a new nuclear power generating station. The exclusion zone for the Darlington Nuclear Generating Station covers a portion of the lands under consideration.

A railway line, owned by Canadian National Railway, passes through the site. The MacDonald-Cartier Freeway (Highway 401) runs north of the site. The closest major industrial establishment to the east of the site is St. Mary's Cement. The closest industrial establishment to the west of the site is the Durham Region Sewage Treatment Plant, currently under construction. The other lands situated near the station are rural farm land.

The area is composed of undulating limestone till plain, spotted with remnants of lake plain deposit. Over most of the site, bedrock is covered by deep soil deposits. Geologic and hydrogeologic evaluations have been performed on the site. The region is tectonically stable, with low to moderate levels of seismicity.

Section 1.5	Plans showing the location, perimeter, areas, structures and systems of the nuclear facility	<i>Class 1 Nuclear Facilities Regulations, Section 3(b)</i>
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Attached (Attachment 1.5) is a photograph of the site. The potential location of the nuclear facility to be constructed is indicated by the outlined area. This photograph also shows the Darlington Nuclear Generating Station. Construction of the DUFDSF had not progressed sufficiently at the time the photograph was taken to provide identifiable structures.

The structure and systems of the nuclear facility that may be constructed vary based on the design selected and the number of units to be constructed. Further information on the structures and systems of the nuclear facility will be provided once a design has been selected.

Section 1.6	Evidence that the applicant is the owner of the site or has authority from the owner of the site to carry on the activity to be licensed.	<i>Class 1 Nuclear Facilities Regulations, Section 3(c)</i>
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Attached (Attachment 1.6) is the Transfer/Deed of Land filed in the Land Titles for the Province of Ontario that provide evidence that OPG-Darlington Inc. is the owner of the site. OPG-Darlington Inc. is a wholly-owned subsidiary of OPG. A Lease Agreement was made between OPG and OPG-Darlington Inc. for the use of the lands and buildings. This Lease Agreement was automatically renewed in 2004 for a period of 5 years, and is expected to be further renewed. Pursuant to condition 4.06, OPG as Tenant may construct Additional Improvements on the lands. Once constructed, the Additional

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Improvements will be owned by OPG-Darlington Inc. and form part of the lease, unless other arrangements have been made.

A copy of the Lease Agreement was provided to the CNSC as an attachment to a letter dated April 16, 1999, from G. Carl Andognini to J.D. Harvie, "Ontario Power Generation Inc. – Evidence of Exclusion Zone Control."

Also included in the attachment is a Survey that identifies the property described in the Transfer/Deed of Land.

Section 1.7	A description of any proposed financial guarantee relating to the activity to be licensed	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(l)</i>
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OPG proposes that a financial guarantee is not required for the activity to be licensed. The evaluation of the site for the potential construction of a nuclear power generating facility does not require permanent changes to the environment. Soil sampling and hydrogeologic investigations will have small impact on the environment. Any necessary infrastructure that will be permitted by the licence will not require the establishment of a guarantee for the costs of remediation given the financial resources available to OPG and the existing financial guarantee for the decommissioning of the Darlington Nuclear Generating Station and the DUFDSF.

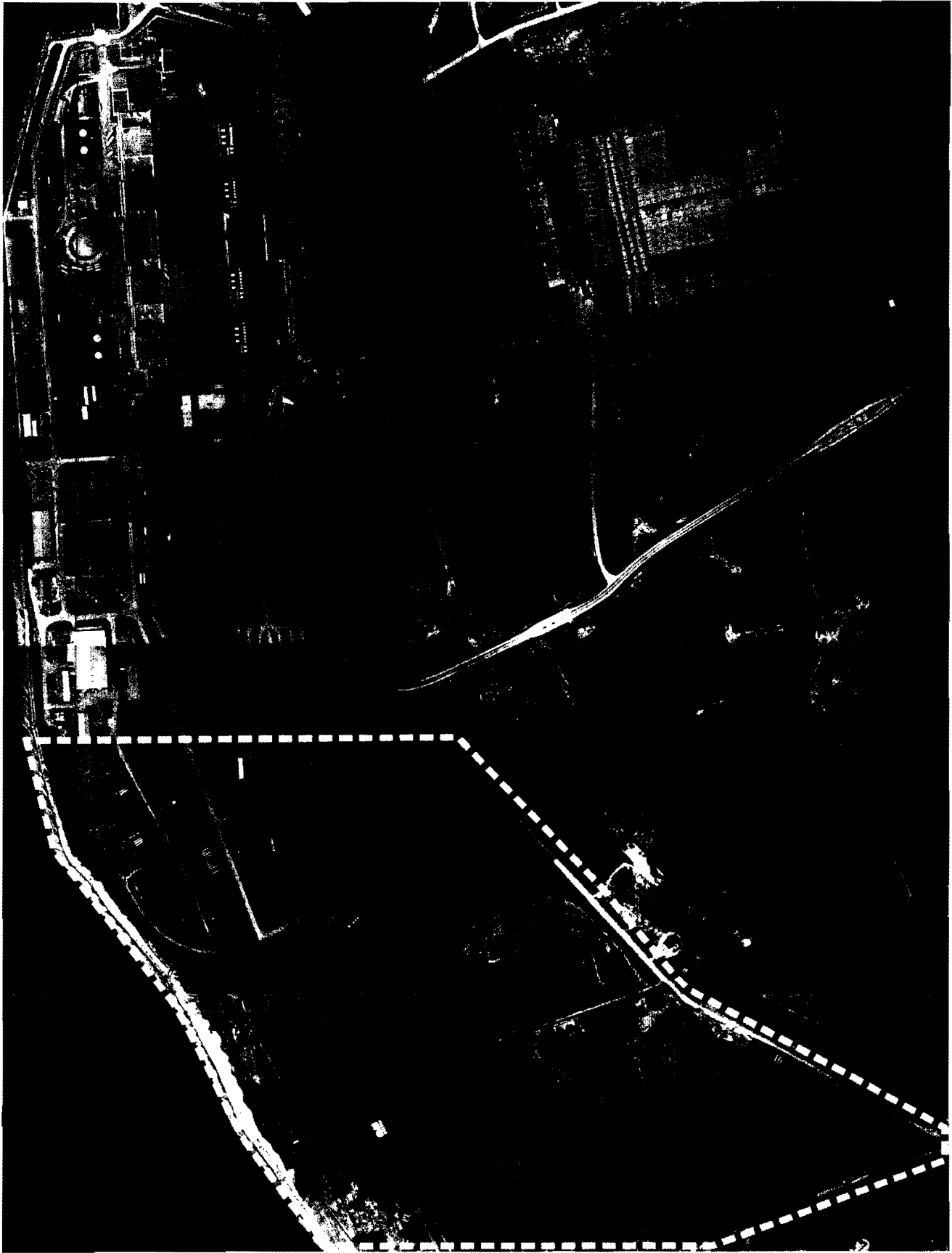
Section 1.8	The proposed plan for the decommissioning of the nuclear facility or of the site	<i>Class 1 Nuclear Facilities Regulations, Section 3(k)</i>
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Generally, OPG proposes that decommissioning will be performed in a manner consistent with the preliminary decommissioning plan that has been submitted and accepted for the Darlington Nuclear Generating Station.

OPG proposes that a preliminary decommissioning plan is not required at this stage for the evaluation of the site. A preliminary decommissioning plan will be prepared for CNSC evaluation as part of any construction application that may be submitted.

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Attachment 1.5 Photograph of the Site



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Attachment 1.6 – Transfer/Deed of Land and Survey

FOR OFFICE USE ONLY

LT1016056

[Signature]

CERTIFICATE OF RECEIPT
DURHAM (40)

01 MAR 8 PM 4 44

New Property Identifiers

Additional: See Schedule

Executions

Additional: See Schedule

(1) Registry Land Titles (2) Page 1 of 5 pages

(3) Property Identifier(s) Block 26606 Property 0134(LT) 0133(LT) Additional: See Schedule

(4) Consideration NIL 00/100 Dollars \$NIL

(5) Description This is a: Property Division Property Consolidation
 Firstly: Part of Lots 23 and 24, Concession Broken Front, Darlington and part of road allowance between Lots 24 and 25, Concession Broken Front, Darlington, designated as PART 6, Plan 10R-94, Municipality of Clarington, Regional Municipality of Durham - more particularly described on Schedule B annexed

(6) This Document Contains (a) Redescription New Easement Plan/Sketch (b) Schedule for: Description Additional Parties Other (7) Interest/Estate Transferred Fee Simple

(8) Transferor(s) The transferor hereby transfers the land to the transferee and certifies that the transferee has at least eight years old and can see attached Schedule A entitled "Electricity Act, 1998 Registration Statement"

Name(s) OPG-DARLINGTON INC. Signature(s) *[Signature]* Date of Signature Y M D 2001 2 5
 By: David W. Drinkwater
 Name: Executive Vice President
 Title: Law and Corporate Development

We have authority to bind the corporation. By: *[Signature]* Date of Signature Y M D 2001 2 5
 Name: Executive Vice President
 Title: and Corporate Secretary

(9) Spouse(s) of Transferor(s) I hereby consent to this transaction. Name(s) Signature(s) Date of Signature Y M D

(10) Transferor(s) Address for Service c/o 700 University Avenue, Toronto, Ontario, M5G 1X6

(11) Transferee(s) OPG-DARLINGTON INC. Date of Birth Y M D

(12) Transferee(s) Address for Service c/o 700 University Avenue, Toronto, Ontario, M5G 1X6

(13) Transferor(s) The transferor verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene section 50 of the Planning Act. Date of Signature Y M D Signature Y M D
 Signature Solicitor for Transferor(s) I have explained the effect of section 50 of the Planning Act to the transferor and I have made inquiries of the transferor to determine that this transfer does not contravene that section and based on the information supplied by the transferor, to the best of my knowledge and belief, this transfer does not contravene that section. I am an Ontario solicitor in good standing. Date of Signature Y M D
 Name and Address of Solicitor Signature

(14) Solicitor for Transferee(s) I have investigated the title to this land and to abutting land where relevant and I am satisfied that the title records reveal no contravention as set out in subclause 50(22)(c)(ii) of the Planning Act and that to the best of my knowledge and belief this transfer does not contravene section 50 of the Planning Act. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing. Name and Address of Solicitor Date of Signature Y M D Signature

(15) Assessment Roll Number of Property City: Mun. Map Sub. Par. Fees and Tax
 Registration Fee 60
 Land Transfer Tax NILA
 Total

(16) Municipal Address of Property Darlington Generating Station, Clarington #11095616

(17) Document Prepared by: BLAKE, CASSELS & GRAYDON LLP Barristers and Solicitors Box 25, Commerce Court West Toronto, Ontario M5L 1A9 (416) 863-2400 ATTENTION: Edward P. Perlmutter/BRK

SCHEDULE A

TO TRANSFER/DEED OF LAND

ELECTRICITY ACT, 1998 REGISTRATION STATEMENT

- ✓ 1. The Transferor is the transferor referred to in Box (8) in the Form 1 (Transfer/Deed of Land) under the *Land Registration Reform Act* to which this schedule is attached, is a person referred to in section 124 of the *Electricity Act, 1998* and is a person from which no consent was required in respect of the transfer in the transfer order, as amended, pursuant to subsection 116(5) of the *Electricity Act, 1998*.
- ✓ 2. The interests described in Box (7) in the lands (the "Lands") described in Box (5) in the Form 1 under the *Land Registration Reform Act* to which this schedule is attached were transferred unconditionally to the Transferor from Ontario Hydro by or pursuant to a Transfer Order, as amended, made under the *Electricity Act, 1998*, which transfer has taken effect.
3. There were no conditions or other provisions in the Transfer Order, as amended, that restrict the power or right of the Transferor to transfer to the Transferee the interest described in Box (7) in the Lands.
- ✓ 4. The foregoing statements are statements made pursuant to section 124 of the *Electricity Act, 1998*.
- ✓ 5. This transfer/deed of land is being registered to record the name of Transferee on title to the Lands.
- ✓ 6. Pursuant to Section 135 of the *Electricity Act, 1998* the *Land Transfer Tax Act* does not apply to any transfer of assets by or pursuant to a transfer order.
- ✓ 7. Where applicable, by the *Power Commission Amendment Act, 1973* proclaimed March 4, 1974, the name of The Hydro-Electric Power Commission of Ontario was changed to Ontario Hydro.

SCHEDULE B
Darlington Nuclear Generating Station
(Legal Description)

1. PIN 26606-0134(LT) [South of CNR]

Part of the Road allowance between Lots 24 and 25, Concession Broken Front Darlington, closed by By-law No. N90910 and Part of Lots 23 and 24, Concession Broken Front Darlington, designated as PART 6, Plan 10R-94;

Parts of Lots 21 and 22, Concession Broken Front Darlington, designated as PARTS 1 and 2, Plan 10R-342;

Parts of Lots 19 and 20, Concession Broken Front Darlington, designated as PART 4, Plan 10R-342;

Part of Lot 18, Concession Broken Front Darlington, designated as PART 6, Plan 10R-342;

Part of the Road allowance between Lots 22 and 23, Concession Broken Front Darlington, closed by By-law No. N90910, designated as PART 5, Plan 10R-553;

Part of Road allowance between Lots 20 and 21, Concession Broken Front Darlington, closed by By-law No. N90910, designated as PART 3, Plan 10R-342;

Part of the Road allowance between Lots 18 and 19, Concession Broken Front Darlington, closed by By-law No. N90910, designated as PARTS 5 and 9, Plan 10R-342;

First Avenue, Second Avenue, Third Avenue and Fourth Avenue, Plan 97 Darlington, closed by By-law No. N90910;

Lots 1534 to 1741, both inclusive, Plan 97 Darlington;

Municipality of Clarington, Regional Municipality of Durham,

and being designated as **PART 1 on Plan 40R-18819**

2. Part of PIN 26606-0133(LT) [North of CNR]

Parts of Lots 23 and 24, Concession Broken Front Darlington and part of road allowance between Lots 24 and 25, Concession Broken Front Darlington, designated as PARTS 2, 3, 4, 5 and 7, Plan 10R-94;

Parts of Lots 21 and 22, Concession Broken Front Darlington, designated as PART 1, Plan 10R-343 and PART 1, Plan 10R-398 **except** PART 1, Plan 10R-1080;

Parts of Lots 19 and 20, Concession Broken Front Darlington, designated as PART 3, Plan 10R-343 **except** PARTS 1 and 2, Plan 10R-786;

Part of Lot 18, Concession Broken Front Darlington, designated as PART 5, Plan 10R-343;

Part of the Road allowance between Lots 22 and 23, Concession Broken Front Darlington, closed by By-law No. N90910, designated as PART 3, Plan 10R-553;

Part of the Road allowance between Lots 20 and 21, Concession Broken Front Darlington, closed by By-law No. N90910, designated as PART 2, Plan 10R-398 and PART 2, Plan 10R-343;

Part of the Road allowance between Lots 18 and 19, Concession Broken Front Darlington, closed by By-law No. N90910, designated as PART 4, Plan 10R-343;

Parts of Lots 157 to 182, both inclusive and Parts of Lots 911 and 912, Plan 97 Darlington as in Expropriation Plan No. N74387;

Parts of Lots 131 to 133, both inclusive, and Parts of Lots 181 and 182, Plan 97 Darlington, designated as PART 1, Plan 10R-553;

Parts of Lots 907 to 912, both inclusive, Plan 97 Darlington, designated as PART 2, Plan 10R-553;

Parts of Lots 885 to 908, both inclusive and part of Seventeenth Avenue, Plan 97 Darlington, designated as PART 1, Plan 10R-664;

Station Road, Fifth Avenue, Sixth Avenue, Seventh Avenue, Eighth Avenue, Ninth Avenue, Tenth Avenue, Eleventh Avenue, Twelfth Avenue, Thirteenth Avenue, Fourteenth Avenue, Fifteenth Avenue and Sixteenth Avenue, Plan 97 Darlington, closed by By-law No. N90910;

Lots 183 to 754, both inclusive and Lots 913 to 1533, both inclusive, Plan 97 Darlington;

Municipality of Clarington, Regional Municipality of Durham,

and being designated as **PARTS 1, 3, 4, 7 to 15 (inclusive) on Plan 40R-18818**

Subject to an easement in favour of Bell Canada as in Instrument No. N138804.

✓ 3. **PIN26606-0051(LT)**

Parcel HY-162 in the Register for Section Water Lot Location Darlington, being part of the bed of Lake Ontario lying in front of Lot 1741, Registered Plan N97, Lots 21, 22 and 23, and the Road Allowance between Lots 22 and 23, Broken Front Concession, in the Municipality of Clarington, (formerly the Town of Newcastle and formerly the Township of Darlington), Regional Municipality of Durham, designated as PART 1, Plan 10R-781,

and now being designated as **PART 2 on Reference Plan 40R-18819.**

Saving and excepting and reserving unto the Crown, heirs and successors, all ores, mines or minerals which are or shall hereafter be found on or under the land hereby granted; also saving, excepting and reserving the free use, passage and enjoyment of, in, over and upon all navigable waters which shall or may hereafter be found on or under, or flowing through or upon, any part of the land hereby granted, and reserving also the right of access to the shores of all rivers, streams and lakes for all vessels, boats and persons; also saving, excepting and reserving the surface rights only in ten per cent of the acreage hereby granted for roads and the right to lay out the same where the Crown or its officers may deem necessary.

✓ 4. **PIN 26606-0052(LT)**

Parcel HY-187 in the Register for Section Water Lot Location Darlington, being part of the bed of Lake Ontario lying in front of Lots 23, 24, 25 and 26, Broken Front Concession and the Road Allowance between Lots 24 and 25, Broken Front Concession, in the Municipality of Clarington (formerly in the Township of Darlington) Regional Municipality of Durham, designated as PART 1, Plan 10R-1551,

and now being designated as **PART 5 on Reference Plan 40R-18819.**

Saving and excepting and reserving unto the Crown, heirs and successors, all ores, mines or minerals which are or shall hereafter be found on or under the land hereby granted; also saving, excepting and reserving the free use, passage and enjoyment of, in, over and upon all navigable waters which shall or may hereafter be found on or under, or flowing through or upon, any part of the land hereby granted, and reserving also the right of access to the shores of all rivers, streams and lakes for all vessels, boats and persons; also saving, excepting and reserving the surface rights only in ten per cent of the acreage hereby granted for roads and the right to lay out the same where the Crown or its officers may deem necessary.

✓ 5. PIN26606-0053(LT)

Parcel HY-184 in the Register for Section Water Lot Location Darlington, being part of the bed of Lake Ontario lying in front of Lots 23 and 24, Broken Front Concession, in the Municipality of Clarington (formerly the Township of Darlington) Regional Municipality of Durham, designated as PART 1, Plan 10R-1347,

and now being designated as **PART 4 on Reference Plan 40R-18819.**

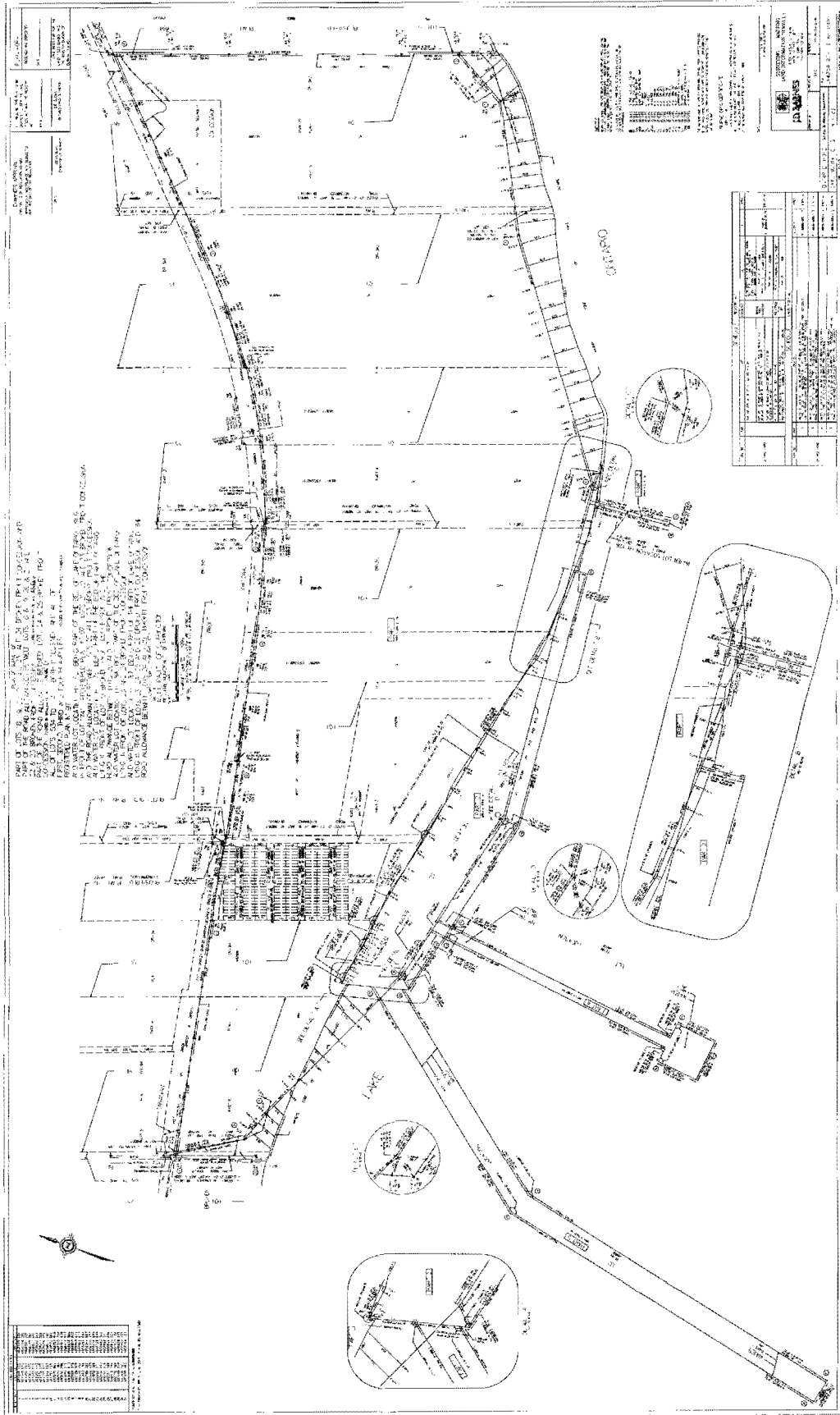
Saving and excepting and reserving unto the Crown, heirs and successors, all ores, mines or minerals which are or shall hereafter be found on or under the land hereby granted; also saving, excepting and reserving the free use, passage and enjoyment of, in, over and upon all navigable waters which shall or may hereafter be found on or under, or flowing through or upon, any part of the land hereby granted, and reserving also the right of access to the shores of all rivers, streams and lakes for all vessels, boats and persons; also saving, excepting and reserving the surface rights only in ten per cent of the acreage hereby granted for roads and the right to lay out the same where the Crown or its officers may deem necessary.

✓ 6. PIN 26606-0085(LT)

Parcel HY-176 in the Register for Section Water Lot Location Darlington, being part of the bed of Lake Ontario lying in front of Lot 20, Broken Front Concession and the Road Allowance between Lots 20 and 21, Broken Front Concession, in the Municipality of Clarington, (formerly in the Town of Newcastle, formerly in the Township of Darlington), Regional Municipality of Durham, designated as PART 1, Plan 10R-1031,

and now being designated as **PART 3 on Reference Plan 40R-18819.**

Saving and excepting and reserving unto the Crown, heirs and successors, all ores, mines or minerals which are or shall hereafter be found on or under the land hereby granted; also saving, excepting and reserving the free use, passage and enjoyment of, in, over and upon all navigable waters which shall or may hereafter be found on or under, or flowing through or upon, any part of the land hereby granted, and reserving also the right of access to the shores of all rivers, streams and lakes for all vessels, boats and persons; also saving, excepting and reserving the surface rights only in ten per cent of the acreage hereby granted for roads and the right to lay out the same where the Crown or its officers may deem necessary.



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Chapter 2 – Quality Assurance Program

Section 2.1	The proposed quality assurance program for the activity to be licensed.	<i>Class 1 Nuclear Facilities Regulations, Section 3(d)</i>
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The evaluation of the suitability of the site for the future construction and operation of a nuclear power generating facility will be performed in a manner that is consistent with the International Atomic Energy Association (IAEA) Safety Standard NS-R-3, "Site Evaluation for Nuclear Installations".

OPG will ensure that:

- The quality assurance program will control the effectiveness of the execution of the site investigations and assessments and engineering activities performed in the different stages of the site evaluation for the nuclear installation,
- The quality assurance program will cover the organization, planning, work control, personnel qualification and training, verification and documentation for the activities to ensure that the required quality of the work is achieved,
- The results of the activities for the site investigations will be compiled in a report or reports that document the results of all in situ work, laboratory tests and geotechnical analysis and evaluations,
- The results of the studies and investigations will be documented in sufficient detail to permit independent review,
- The quality assurance program will cover all activities that may influence safety or the derivation of parameters for the design basis for the site,
- Verification of technical and engineering analyses and judgments will be performed by individuals or groups who are separate from those who did the work,
- Operating experience from failures at other facilities and from events will be documented and analyzed in order to provide evidence that similar failures will not occur at the site,
- Records will be kept of the work carried out in support of the site evaluation.

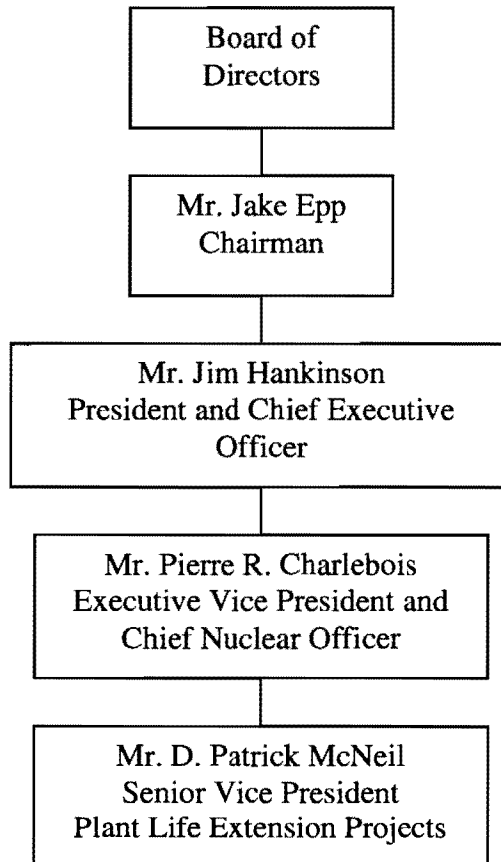
Section 2.2	The applicant's organizational management structure insofar as it may bear on the applicant's compliance with the Act and the regulations made under the Act, including the internal allocation of functions, responsibilities and authority.	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(k)</i>
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Chart 2 - 2 shows the organizational management infrastructure from OPG's Board of Directors and Chair, through our President and Chief Executive Officer, Mr. Jim Hankinson, our Executive Vice President and Chief Nuclear Officer, Mr. Pierre R. Charlebois, to our Senior Vice President, Plant Life Extension Projects, Mr. D. Patrick McNeil. Responsibility for performance of the site evaluation has been delegated to Mr. D. Patrick McNeil.

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These individuals, in their respective functions, are responsible for and have the authority necessary to ensure OPG's compliance with the Nuclear Safety and Control Act, and the Regulations made under the Act.

Chart 2 - 2 Organizational Management Structure



Section 2.3	The proposed quality assurance program for the design of the nuclear facility	<i>Class 1 Nuclear Facilities Regulations, Section 4(d)</i>
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OPG intends to contract with a third party for the design of the nuclear facility. We will ensure that the designer's quality assurance program conforms with Canadian Standards Association standard CAN3-N286.2-00: Design Quality Assurance for Nuclear Power Plants, or such other equivalent standard.

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Section 2.4	The proposed worker health and safety policies and procedures	<i>Class 1 Nuclear Facilities Regulations, Section 3(f)</i>
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OPG will apply the worker health and safety policies and procedures that are in use at its other Class 1 Nuclear Facilities. These policies and procedures include the requirement that any contractor that will perform as a general contractor for the project will demonstrate that their program meets or exceeds the requirements of the Ontario Occupational Health and Safety Act and the Construction Regulations made under that Act.

Ontario Power Generation (OPG) is firmly committed that personnel are protected from unnecessary occupational hazards and risks that could adversely impact health and safety. A copy of the Health and Safety Policy approved by the Board of Directors is attached. (Attachment 2.4)

In order to achieve this goal, OPG has established and implemented a comprehensive program to protect the health and safety of station personnel, visitors and contractors. The program integrates a series of corporate directives, policies, standards, procedures and programs to institutionalize uniform and effective practices for health and safety and support compliance with all applicable legal requirements such as the Ontario Occupational Health and Safety Act and Regulations.

In general, a healthy and safe workplace is provided by the following:

- A cognizant and well-trained work force.
- Effective work planning and management.
- Applying safe work practices.
- Monitoring and assessing work in progress and the overall health and safety program.
- Fostering effective communication, reporting and record keeping.

A fulsome description of the health and safety program has been submitted to the CNSC in the applications for the operation of Darlington Nuclear Generating Station and Pickering A and B Nuclear Generating Stations. OPG is obliged, pursuant to the licences issued by the CNSC, to conform with the program submitted in its applications. A copy of the program can be provided if required.

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Attachment 2.4 OPG Health and Safety Policy

Policy Statement:

Ontario Power Generation (OPG) is an Ontario-based company whose principal business is the generation and sale of electricity to customers in Ontario and in interconnected markets. OPG, and its contractors, will carry out these activities in a responsible manner that minimizes risks to employees and the public.

Ontario Power Generation believes that healthy employees working safely in an injury-free and healthy workplace is good business. OPG will integrate public safety considerations into business practices and decisions.

OPG and its contractors will meet all applicable health and safety legislative requirements. OPG will also meet other associated standards to which we subscribe with the objective of moving beyond compliance. OPG will specify that contractors maintain a level of safety equivalent to that of OPG employees while at OPG workplaces.

Improving health and safety performance will be accomplished through the application of continuous improvement principles and systems to promote and maintain the physical, mental and social well being of employees in an injury-free and healthy workplace.

Requirements:

All employees:

- have accountability for Health and Safety. This includes making conservative decisions regarding our operations as they relate to the health and safety of our employees, contractors and the public. Line management's specific accountabilities will be clearly defined for each level of management.
- are accountable for maintaining or taking positive steps to achieve a state of health that is consistent with the demands of his/her occupation. They are also accountable for performing work safely and for identifying, communicating and, where appropriate, correcting workplace hazards in order to protect themselves, their co-workers, or the public from harm.

Management is accountable for:

- ensuring the work environment is designed to protect workers and the public;
- ensuring that work is planned and performed to protect workers and the public;
- providing employees with the information, training, tools, procedures and support required to do their job safely and without harming other workers or the public.

OPG Contractors are accountable for:

- the health and safety of their own employees at OPG workplaces and for ensuring their activities do not harm OPG employees or the public.

Employees will be involved in decisions that have an impact on their health and safety, either individually, as a group, or through their employee representative groups. OPG will engage in partnerships that enhance public safety awareness and address public safety issues in the communities in which we operate. OPG will also actively support initiatives focusing on young worker safety within these communities as well as the company.

Health and safety performance will be measured and evaluated in a meaningful way, with the objective of continuously improving that performance. Good health and safety behaviour and performance will be recognized; substandard behaviour and performance will be identified and corrected.

**Sponsoring
Unit:**

Executive Vice President
Human Resources and Chief
Ethics Officer

Approval: Board of Directors
Date: November 10, 2005

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Section 2.5	The proposed environmental protection policies and procedures.	<i>Class 1 Nuclear Facilities Regulations, Section 3(g)</i>
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OPG is committed to operating its facilities in a manner that is consistent with sustainable development. Attached (Attachment 2.5) is a copy of the Environmental Policy approved by the Board of Directors that captures that commitment.

Ontario Power Generation (OPG) has established and implemented a comprehensive environmental management program to assess environmental risks associated with nuclear station activities and to ensure that these activities are conducted such that their *adverse impact* on the natural environment is minimized. This program includes OPG's approach to support compliance with applicable statutory, regulatory, and other requirements. The program and its supporting governing documents also provide OPG with a systematic approach for conformance to the International Organization for Standardization (ISO) 14001 Environmental Management System Standard. In particular, an independent authorized registrar has verified program conformance with ISO 14001 and the program has been certified as being ISO 14001 conformant.

A fulsome description of the environmental management program has been submitted to the CNSC in the applications for the operation of Darlington Nuclear Generating Station and Pickering A and B Nuclear Generating Stations. As with the other programs provided in those applications, OPG is obliged, pursuant to the licences issued by the CNSC, to conform with the program. A copy of the program can be provided if required.

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Attachment 2.5 OPG Environmental Policy

Environmental Policy

Effective: May 10, 2006

Policy Statement: OPG will strive to continually improve its environmental performance by committing to the following seven requirements:

- Requirements:**
- **Meet or Exceed Legal Requirements:** Meet all legal requirements and OPG's voluntary commitments, with the objective of exceeding those standards where appropriate and feasible.
 - **Advance Environmental Stewardship:** Contribute to environmental protection, pollution prevention and energy and resource use efficiency.
 - **Maintain ISO 14001 System:** Maintain registrations to the International Organization for Standardization (ISO) 14001: 2004 Environmental Management System.
 - **Integrate Environment in Decision-Making:** Integrate environmental factors and stakeholder considerations into our planning, decision-making and business practices.
 - **Engage Employees:** Engage and educate employees to conduct their activities in a manner that respects and protects the environment.
 - **Contribute to Our Communities:** Contribute to and enhance the environmental well-being of the communities in which we operate and the broader public who grant us our license to operate.
 - **Communicate:** Measure and publicly communicate our environmental performance with employees, governments, local communities, contractors and other stakeholders.

This Environmental Policy is an important part of OPG's commitment to Sustainable Development.

Accountabilities: The President and CEO is accountable for this Policy.

The Vice President Sustainable Development is accountable for monitoring and reporting regularly to the Executive and Board on OPG's environmental performance and progress in implementing this Policy, including immediate notification of a Significant Environmental Event.

The Business Unit leaders are accountable for environmental performance and compliance within their Business Unit.

All employees have accountability for protecting the environment and for complying with this Policy.

Sponsoring Unit: Vice President
Sustainable Development

Approval: Board of Directors
Date: May 10, 2006

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Chapter 3 – Radiation Protection and Nuclear Substances

Section 3.1	The name, maximum quantity and form of any nuclear substance to be encompassed by the licence.	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(c)</i>
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There will be no nuclear substances encompassed by the site preparation licence requested.

Section 3.2	The proposed measures to ensure compliance with the <i>Radiation Protection Regulations</i>	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(e)</i>
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OPG does not request permission to possess, transfer, use, or store nuclear substances in this licence. Any workers will not be at risk of receiving radioactive emissions as a result of the activities to be performed. Specific measures are not required with respect to this application for compliance with the *Radiation Protection Regulations*.

OPG's Radiation Protection program for its Nuclear Power Generating Stations and Waste Management Facilities has been previously provided to the CNSC, and is specifically referenced in the licences that have been granted. A copy of the program can be provided if required.

Section 3.3	Any proposed action level for the purpose of section 6 of the <i>Radiation Protection Regulations</i>	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(f)</i>
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OPG does not request permission to possess, transfer, use, or store nuclear substances in this licence. There will be no dose of radiation or other parameter that would cause OPG to develop an action level pursuant to section 6 of the *Radiation Protection Regulations*.

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Chapter 4 – Site Evaluation and Environmental Effects

Section 4.1	A description of the site evaluation process and of the investigations and preparatory work that have been and will be done on the site and the surrounding area.	<i>Class 1 Nuclear Facilities Regulations, Section 4(a)</i>
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Site evaluation will be performed consistent with the IAEA standard NS-R-3, "Site Evaluation for Nuclear Installations". The evaluation will include specific consideration of:

- Earthquakes and surface faulting,
- Meteorological events, including rare events such as tornadoes
- Flooding,
- Geotechnical hazards such as the potential for slope instability and the behaviour of the subsurface foundation materials,
- External Human Induced events such as airplane crashes and, given the proximity of the site to a rail line, railway crashes,
- Site characteristics such as air temperature, humidity, water temperatures, lake algae, marine organisms that may have an effect on the operation of a nuclear generating station,
- Site characteristics that effect the radiological releases from the station, including population distribution and forecasted growth in the area.

Also consistent with the IAEA standard, the evaluation will include additional matters such as radioactive and hazardous waste storage and handling, the potential interactions between nuclear and non-nuclear effluents, and consideration of the effects of the operation of the facility both in terms of normal operations and postulated accident conditions. Initially this will involve a review of the site evaluations that have been performed for Darlington Nuclear Generating Station and the Darlington Used Fuel Dry Storage Facility. Any additional investigations and preparatory work identified by this review will be performed and used in completion of the evaluation.

Section 4.2	The proposed program to establish the environmental baseline characteristics of the site and the surrounding area.	<i>Class 1 Nuclear Facilities Regulations, Section 4(c)</i>
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The environmental baseline characteristics of the site and surrounding area will be established by the following steps:

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- Review of the site baseline descriptions that have been obtained for the operating island of the Darlington Nuclear Generating Station, the Darlington Nuclear Site, and the Darlington Used Fuel Dry Storage Facility,
- Identify the environmental, social and cultural baseline parameters required for a thorough evaluation of the Darlington Nuclear site and surrounding area,
- Establish appropriate site study areas for the evaluation,
- Determine any gaps in the site, local and regional databases,
- Compile data, including conducting necessary field studies to obtain additional data.

The program that is to be developed will build on the existing database and knowledge gained from over thirty years of environmental data collection centered on the Darlington Nuclear site. This will include studies across all unused and uncommitted portions of the Darlington site required to support the development of a new generation facility. Site and surrounding area data will be collected to augment data already compiled for the following environmental factors:

Physical Environment

- **Atmospheric Environment:** representing air quality with respect to non-radiological parameters, including noise, and considers meteorological and climatic conditions;
- **Hydrology, Water Quality and Aquatic Environment:** representing surface water quality and conditions, and aquatic biota and habitat;
- **Geophysical, Hydrogeology and Seismic Environment:** representing geological, hydrogeological, and seismic conditions;
- **Radiation and Radioactivity:** representing environmental radiation and radioactivity, including radionuclide emissions and doses to humans and non-human biota;
- **Terrestrial Environment:** representing terrestrial biota and habitat;

Social and Cultural Environment

- **Physical and Cultural Heritage:** representing cultural, heritage and archaeological resources; and
- **Aboriginal Interests:** representing traditional use of lands and resources by aboriginal persons and related interests.
- **Land Use:** representing land use and transportation;

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- Socio-Economic Conditions: representing populations, economic base, services, recreation and communities.

Section 4.3	A description of the site's susceptibility to human activity and natural phenomena, including seismic events, tornadoes and floods	<i>Class 1 Nuclear Facilities Regulations, Section 4(b)</i>
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A description of the site's susceptibility to human activity and natural phenomena including seismic events, tornadoes, and floods was performed for the siting of the Darlington Nuclear Generating Station and the Darlington Used Fuel Dry Storage Facility.

The evaluation described in section 4.1 will include a review of the assessments that were previously performed to evaluate the site's susceptibility to human activity and natural phenomena. Additional assessments required in response to operating experience or a change in the baseline that has occurred since those previous assessments were performed will be done.

Section 4.4	The name, form, characteristics and quantity of any hazardous substances that may be on the site while the activity to be licensed is carried on.	<i>Class 1 Nuclear Facilities Regulations, Section 3(e)</i>
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Other than materials incidental to the operation of the equipment that will be used in the preparation of the site, OPG does not anticipate bringing any hazardous substances onto the site being prepared while the activity to be licensed is carried on.

Section 4.5	The effects on the environment and the health and safety of persons that may result from the activity to be licensed, and the measures that will be taken to prevent or mitigate those effects.	<i>Class 1 Nuclear Facilities Regulations, Section 4(e)</i>
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The effects on the environment and the health and safety of persons that may result from the eventual construction and operation of the facility will be assessed.

Mitigation measures, such as effluent treatment systems and emission treatment systems vary between the designs. The mitigation measures will be described in the evaluation report.

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Section 4.6	A description and the results of any test, analysis or calculation performed to substantiate the information included in the application.	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(i)</i>
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Attached (Attachment 4.6) is a listing of the tests, analysis, or calculations that have been performed previously to determine the acceptability of the site as a location for a Class 1 Nuclear Facility. These tests, analysis, or calculations have been previously submitted to the CNSC as part of the licence application for the Darlington Nuclear Generating Station (as referenced in the Safety Report for the station), or in the application for the site preparation and construction of the Darlington Used Fuel Dry Storage Facility.

As mentioned, OPG will perform an evaluation of the suitability of the site consistent with the requirements of the IAEA Safety Standard NS-R-3, "Site Evaluation for Nuclear Installations". The evaluation will include consideration of the historic studies that have been performed at the site, and such additional tests, analysis, or calculations that may be required for the purpose of determining the fitness of the site for construction and operation of a new nuclear power generating station.

Section 4.7	The name, form, origin and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed, including waste that may be stored, managed, processed or disposed of at the site of the activity to be licensed, and the proposed method for managing and disposing of that waste.	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(j)</i>
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OPG does not expect to generate any radioactive waste or hazardous waste as a result of the activity to be licensed.

If incidental soil contamination should be encountered during site preparation activities, it will be stored, managed, and processed in accordance with OPG's established environmental protection program and procedures.

Section 4.8	The proposed effluent and environmental monitoring programs.	<i>Class 1 Nuclear Facilities Regulations, Section 3(h)</i>
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Any emissions or effluents that will be produced by the site preparation activities will be approved by the Ontario Ministry of the Environment through the issuance of a Certificate of Approval.

Consistent with the IAEA Standard NS-R-3, the potential effects on the natural and human environment, as well as the predicted conditions that influence those effects such

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as meteorological conditions, will be monitored. Monitoring will commence no later than the start of construction and will continue throughout operation of the facility.

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Attachment 4.6

Listing of the Tests, Analysis, or Calculations Performed to Substantiate the Suitability of
the Site for Nuclear Power Generation Facilities

**1. Darlington Nuclear Generating Station Safety Report, dated June 1, 2004,
NK38-SR-03500-1001.**

Referenced Reports:

- 1.1. Ontario Hydro, Bowmanville Site, Geotechnical Investigation Studies and Evaluation, Site Development Phase, Report 177-47, 1972.
- 1.2. Ontario Hydro, Bowmanville Site, Interim Report, Preliminary Engineering Phase, Site Grading and Reclamation, Results of 1973 Investigations and Geotechnical Evaluation, Report 74010, 1974.
- 1.3. Ontario Hydro, Influence of External Man-Made Activities on Darlington NGS A, Report 78191, 1979.
- 1.4. Ontario Hydro, The Distribution of Fish Populations and Fisheries Situated Within a 100 km Radius of Darlington NGS, Report 87019, 1987.
- 1.5. Environment Canada, Canadian Climate Normals 1951 – 1980, Temperature and Precipitation, Ontario, Wind Volume 5, Solar Radiation Volume 1, 1982.
- 1.6. Ontario Hydro, A Study of the Dispersion Climatology of the Pickering Area, report 84-137-K, 1984.
- 1.7. Oliviero, M., Updated Site Specific Atmospheric Dilution Factors for Use in Safety Analysis, NTS Report N-03611.1-965074 R0, October 1996.
- 1.8. Ontario Hydro, Lake Ontario Nearshore Currents in the Vicinity of Darlington NGS 1984-1986, Summary of the Pre-Operational Period, Report 87554, 1987.
- 1.9. Ontario Hydro, Lake Ontario Nearshore Currents in the Vicinity of Darlington NGS 1987-1989, Report 92184, 1992.
- 1.10. Ontario Hydro, Lake Ontario Water Temperatures in the Vicinity of Darlington NGS 1984-1986, A Pre-Operational Summary, Report 87414, 1987.
- 1.11. Ontario Hydro, Lake Ontario Water Temperatures in the Vicinity of Darlington NGS 1987-1989, Report 91243, 1991.
- 1.12. Ontario Hydro, Darlington NGS, Results of the 1976 Field Investigations and Geotechnical Evaluation, 77029, 1977.
- 1.13. Ontario Hydro, Darlington NGS, Cooling Water Intake Tunnel Geotechnical Investigations and Evaluation, Report 79003, 1979.
- 1.14. Ontario Hydro, Darlington NGS, Results of 1977 Geotechnical Investigation and Geotechnical Evaluation, Powerhouse and Forebay Areas, Report 77124, 1978.
- 1.15. Weston Geophysical Engineers Inc. Weston, Mass, Bowmanville GS, Seismic Refraction Survey, Ontario Hydro Report 177-33, 1971.
- 1.16. Geoprobe Limited, Report on the Maxi-Probe EMR-16 Survey in Bowmanville (Port Darlington), Ontario Hydro Report 78071, 1978.
- 1.17. Geological Survey of Canada, Vertical Gradiometer Aeromagnetic Survey of the Bowmanville Area, Flown for Ontario Hydro, Department of Energy, Mines and Resources, Ottawa, 1978.

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- 1.18. Geoterrex Limited, Final Report on a MINI-SOSIE Seismic Reflection Survey Performed at Bowmanville Ontario on Behalf of Ontario Hydro, Ontario Hydro Report 79226, 1979.
- 1.19. Ontario Hydro, Darlington NGS, Underground Nuclear Power Station Study, Borehole UN-1 Geotechnical Investigation, Report 78230, 1978.
- 1.20. Ontario Hydro, Darlington NGS A, Borehole UN-2 Geological Investigation, Report 85174, 1985.
- 1.21. Ontario Hydro, Darlington NGS, Structural Geology, Report 81406, 1981.
- 1.22. Lee, C.F. and T.W. Klym, Determination of Rock Squeeze Potential for Underground Power Projects, Engineering Geology, Volume 12, pp 181 – 192, 1978.
- 1.23. Department of Energy, Mines and Resources, Earth Physics Branch, Design Basis Seismic Ground Motion for Darlington Nuclear Generating Station, Ontario Hydro Report 75359, 1975.
- 1.24. Department of Energy, Mines and Resources, Earth Physics Branch, Darlington NGS Site Seismic Risk Analysis, Ontario Hydro Report 75360, 1975.

2. Darlington Used Fuel Dry Storage Facility Environmental Assessment

- 2.1. Darlington Used Fuel Dry Storage Project, Environmental Assessment Study Report Volume 1: Main Report; Volume 2: Appendices, 2003.
- 2.2. Darlington Used Fuel Dry Storage Project: Aboriginal Interests Technical Support Document, 2002.
- 2.3. Darlington Used Fuel Dry Storage Project: Atmospheric Environment Technical Support Document, 2002.
- 2.4. Darlington Used Fuel Dry Storage Project: Geology, Hydrogeology and Seismicity Technical Support Document, 2002.
- 2.5. Darlington Used Fuel Dry Storage Project: Hydrology, Water Quality and Aquatic Environment Technical Support Document, 2002.
- 2.6. Darlington Used Fuel Dry Storage Project: Land Uses and Resources Technical Support Document, 2002.
- 2.7. Darlington Used Fuel Dry Storage Project: Physical and Cultural Heritage Technical Support Document, 2002.
- 2.8. Darlington Used Fuel Dry Storage Project: Radiation and Radioactivity Technical Support Document, 2002.
- 2.9. Darlington Used Fuel Dry Storage Project: Socio-economic Conditions Technical Support Document, 2002.
- 2.10. Darlington Used Fuel Dry Storage Project: Terrestrial Environment Technical Support Document, 2002.

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Chapter 5 – The Proposed Public Information and Consultation Program

Section 5	The proposed program to inform persons living in the vicinity of the site of the general nature and characteristics of the anticipated effects on the environment and the health and safety of persons that may result from the activity to be licensed.	<i>Class 1 Nuclear Facilities Regulations, Section 3(j)</i>
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OPG values the relationships it has with the local community and stakeholders. The overall objective of our public information program is to ensure that the public and key stakeholders are supportive of our operations. OPG's public information program ensures that we:

- Inform persons living in the vicinity of the site of the general nature and characteristics of the anticipated effects on the environment and the health and safety of persons that may result from our operations,
- Seek community, stakeholder, and general public views and perspectives on proposed activities,
- Promptly respond to issues raised by the community, stakeholders, and the general public,
- Provide clear, consistent, and accurate information.

OPG's program meets the expectations established in the CNSC's Guideline on Licensee Public Information Programs, and is described in the applications that are submitted for our other facilities at the Darlington site.

Target Audience

OPG will consult with a number of stakeholders, including:

- Elected officials, MP's, MPP's, mayors, and councilors, in the host community and adjacent areas,
- Federal, provincial, regional and municipal agencies and officials with a regulatory role or project interest
- Darlington Site Planning Committee
- Durham Nuclear Health Committee
- The Darlington 'community' including
 - neighbouring residents
 - local businesses
- OPG Employees
- Local non-governmental organizations and interest groups
- First Nation and Aboriginal Communities

OPG will also communicate with the general public directly and through the news media.

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OPG's Existing Public Information, Communications and Consultation Program

OPG plans to employ multiple communication approaches to enhance public understanding of the site preparation and construction activities that will potentially occur at the site, using OPG's existing community relations and public information activities at Darlington Nuclear. Our existing program includes:

- The Site Planning Committee, whose members are local neighbours, business representatives, and officials from the community as well as Darlington employees. This Committee provides community input to land uses and environmental enhancements to station property not utilized in the production of electricity.
- An annual presentation to Clarington Municipal Council by the Senior Site Vice President, Senior Vice President, Plant Life Extension Projects, and the Executive Vice-President and Chief Nuclear Officer.
- One-on-one meetings between the Senior Site Vice-President, the Senior Vice President, Plant Life Extension Projects, and the Mayor, MPs, and local MPP.
- Environmental effects presentations to the municipal council, including the annual review of flora and fauna at the Darlington site.
- Operation of the Darlington Public Information Centre. Visitors receive information on current issues and are provided an opportunity to have questions and concerns addressed. Information provided in the centre is continuously updated to address public concerns.
- A student education program that provides students with information on the operation of the station and the local environment.
- Partnerships with Darlington Provincial Park, Central Lake Ontario Conservation Authority, Ganaraska Region Conservation Authority, and the Clarington Recreation Department to increase use of the Darlington site for summer outdoor activities.
- Financial support for community-supported projects through a Corporate Citizenship program, particularly in the education, environment, and minor sports areas.
- Quarterly OPG and Darlington report cards that are sent to regional, provincial, and municipal representatives as well as the local media and other stakeholder groups in the community.
- A quarterly community newsletter, Darlington Neighbours. The newsletter is distributed to all residents and businesses in the Municipality of Clarington and the City of Oshawa.
- Annual tours of the station and site by municipal politicians and the local media.

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Public Communication and Consultation Specific to the Application

Specific to the site preparation application, OPG will undertake the following:

Notification Advertisements and Letters

A public statement will be prepared and distributed to announce the commencement of the site preparation licensing activity, via a press release, web communications, the Darlington Nuclear community newsletter (Darlington Neighbours) and advertisements in local print media. Advertisements will be placed in area newspapers to announce the three rounds of open houses. Media outlets will be selected to provide broad coverage throughout the area.

Stakeholder Briefings and Interviews

Interviews and briefings will be conducted to identify stakeholder concerns and issues. All stakeholders with a known interest in the operations at the Darlington Nuclear Site will be approached to discuss and provide input or be offered briefings to present information and provide an opportunity to have questions and comments addressed. Materials will be made available to participants in advance of any interviews or briefings. Where appropriate, and in consultation with community representatives, special meetings may be arranged for Aboriginal communities. Feedback received from these will be recorded for incorporation into a stakeholder comment database, response and issue management tracking system.

Regular updates will be presented to representatives of the Darlington Site Planning Committee and Durham Nuclear Health Committee on a frequency commensurate with key project activities and milestones.

Workshops

Key stakeholders with a high level of interest in the site preparation licensing activity will be invited to participate in workshops that will involve meaningful discussions and provide substantive input to OPG's site preparation activities.

Open Houses/Community Information Sessions

Open Houses and/or Community Information sessions will occur repetitively throughout the licensing activity to share information, describe key activities and communicate progress. These types of session provide an opportunity for the public to ask questions, obtain clarification, and identify or raise any concerns or issues they may have. A variety of mechanisms will be used to inform people about the Open Houses and/or Community Information sessions and encourage attendance, including paid advertisements in local newspapers, information in the Darlington Neighbours community newsletters, distribution of invitation cards and/or letters of invitation.

Following these forums, summaries of conversations with attendees will be developed. These summaries and completed comment forms would be used to identify public issues, concerns and questions that need to be addressed.

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OPG Employee Consultation Activities

The employee communication program will include articles written for all employee publications including OPG wide and Darlington Station specific vehicles - both electronic (such as OPG Today, Darlington's On-Site) and hard copy (Power News). Staff presentations and Lunch-and-Learn sessions will be held. A specific intranet site will be set up to facilitate communication with employees.

Web Site

A site preparation web site will be established and linked to the main OPG web site. The web site will serve as a vehicle to provide access to information, as well as a mechanism to receive input from interested persons as an enhancement of the public consultation program. Information such as: scope; schedule; descriptions; process steps; events; and contacts pertaining to the licensing will be maintained. We intend to publish all formal communications, except those that are security protected, that we have with the CNSC on this website to ensure that the public has access to this information.

Information Line

A 1-800 information line will be established. When not answered in person, the dedicated line will inform callers how to obtain details/information about the site preparation licensing activity. Messages will be checked and responded to on a daily basis and incorporated into the stakeholder comment database with any follow-up required.

Media Relations

Ongoing liaison with respect to the site preparation licensing activity will be initiated and maintained by OPG with reporters and news editors for both the electronic and print media.

Comment and Issues Tracking

A comment database will be created to record and monitor all comments, correspondence and communications with the public and stakeholders involved in the site preparation licensing process. The objective of the issue management program is to address and resolve any issues and concerns held by the public or stakeholders to the extent possible.

The Stakeholder Comment Database will be structured to:

- Identify and record the source of the comment (name of person or groups);
- Indicate the date and event of origin;
- Identify the type of communication and the original document for cross-referencing (letter, meeting report, email, voicemail report, etc.);
- Provide a summary of the comment and response;

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- Indicate the response action taken, when and by whom; and,
- Document how the response was communicated to the comment source, where applicable.

Current Public Opinion and Media Coverage

A July 2006 survey taken by Ipsos Reid on behalf of the Canadian Nuclear Association of approximately 1,000 Ontario residents indicated that roughly 60% of the residents are supportive of nuclear power, and approximately 50% of residents are supportive of additional nuclear power.

Media coverage with respect to this application has been limited. In the months following the release of the Provincial government's directive to OPG a number of media stories circulated in local, regional, and national papers.

In general, media articles indicating support for new build were written by local and regional reporters. Most coverage was within Durham Region with a few articles appearing in the Toronto Star. The articles focused on nuclear power being the answer to the government's energy crisis, the reliability and low-price of nuclear and the need for nuclear to be part of the energy mix in Ontario to ensure a reliable, clean and inexpensive source of power. Editorials and opinion pieces that were critical of new build were covered by regional and national reporters. Articles were featured in one Durham Region paper, Toronto publications as well as in Peterborough and Ottawa papers. The articles focused on the cost of new nuclear stations, combined with the cost overrun from the last fleet of reactors, the dangers of nuclear and the lack of public debate before the government embraced the idea of new nuclear for Ontario. The vast majority of published media articles were neutral, were typically in national and international papers, and focused on the government's announcement, and on the activities taking place since that time.

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Chapter 6 – Nuclear Security Information

Due to the nature of the information, a separate submission will be provided that describes OPG's application with respect to the following:

Section 6.1	The proposed measures to ensure compliance with the <i>Nuclear Security Regulations</i>	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(e)</i>
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Section 6.2	The proposed measures to control access to the site of the activity to be licensed and the nuclear substance, prescribed equipment or prescribed information.	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(g)</i>
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Section 6.3	The proposed measures to prevent loss or illegal use, possession or removal of the nuclear substance, prescribed equipment or prescribed information.	<i>General Nuclear Safety and Control Regulations, Section 3.(1)(h)</i>
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Section 6.4	The information required by section 3 of the <i>Nuclear Security Regulations</i> .	<i>Class 1 Nuclear Facilities Regulations, Section 3(i)</i>
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Revisions Table

Date	Explanation of the Revision	Source
Dd/mm/yyyy	Change made, chapter, section and page effected	Letter from CNSC, letter to CNSC, results of further studies and evaluations