



Independent
Electricity
Market Operator

Waiver Application (General Process)

WVR 01160

Submit this form by registered mail, courier or fax to the following address:

The IMO
655 Bay Street, Suite 410
P.O. Box 1
Toronto, ON M5G 2K4

Fax No.: (905) 212-3498

Subject: Waiver Application (General Process)

All information submitted in this process will be used by the IMO solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All information submitted will be assigned the appropriate confidentiality level upon receipt.

PART 1 – WAIVER APPLICANT - GENERAL INFORMATION

Organization Name: <u>Ontario Power Generation Incorporated - Darlington Waiver #9</u>	
Market Participant/Metering Service Provider No. (if applicable): _____	IMO Help Centre (IHC) Ticket No. (if applicable): <u>N.A.</u>
Address: <u>700, University Avenue</u>	
City/Town: <u>Toronto</u>	Province/State: <u>Ontario</u>
Postal/Zip Code: <u>M5G 1X6</u>	Country: <u>Canada</u>
Fax No.: <u>N.A.</u>	
Email Address: <u>N.A.</u>	
Main Contact	
Name: <u>Brian Gooder</u>	
Telephone No.: <u>416 592 7712</u>	Fax No.: <u>416 592 8519</u>
E-mail Address: <u>brian.gooder@opg.com</u>	
Web Site (URL): _____	

PART 1 – GENERAL INFORMATION (CONTINUED)

Alternative Contact	
Name: <u>Wolfgang Burmester</u>	
Telephone No.: <u>416 592 7913</u>	Fax No.: <u>416 592 8519</u>
E-mail Address: <u>wolfgang.burmester@opg.com</u>	

PART 2 – INFORMATION ABOUT THE WAIVER APPLICATION

1. This waiver form is for the general waiver process. Are you also requesting an interim waiver?	
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
2. Is this waiver application being submitted for existing facilities or equipment pursuant to Section 14.12 of Chapter 1 of the <i>Market Rules</i> ?	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3. Please specify the duration for which you would like the waiver granted in days, months or years: <u>Life of existing equipment and any replacement components</u>	
4. Are you requesting priority sequencing of your waiver application?	
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Please cite the Market Rules Section Number(s) to which this Waiver Application relates:	Please cite policy, standard or procedure to which this Waiver Application relates (including section number(s)):
<u>Chap 4, section 3.1.3 & Appendix 4.2</u>	

PART 3 – SUBMISSIONS IN SUPPORT OF WAIVER APPLICATION

Attach a waiver applicant's plan detailing:

- The manner and time within which the waiver applicant will become compliant with the obligation or standard to which the waiver application relates;
- The manner in which the waiver applicant proposes to modify its equipment or facilities or otherwise conduct its operations during the period of time for which the waiver would be in effect; and
- The waiver applicant's estimate of any costs that may be imposed on the IMO or on other Market Participants, if the waiver were granted;

The following submissions must be included, either as attachments or in the space provided below:

- The waiver applicant's assessment as to whether or not the waiver, if granted would:
 - ◆ Materially threaten the ability of the IMO to direct the operations and maintain the reliability of the IMO-controlled grid;
 - ◆ Materially threaten the ability of the IMO to ensure non-discriminatory access to the IMO-controlled grid;
 - ◆ Unless the waiver applicant is the IMO, materially affect the ability of the IMO to operate the IMO-administered markets in an efficient, competitive and reliable manner;
 - ◆ Provide the waiver applicant with an undue preference within the IMO-administered markets;
- An assessment of the costs or delay to the waiver applicant of complying with the obligation or standard to which the waiver application relates;
- Where the waiver applicant is the IMO, identification of the benefit to Market Participants of compliance with the obligation or standard to which the waiver application relates relative to the financial and other resources required to achieve compliance within such deadlines as may be applicable;
- Where the waiver applicant is the IMO, the manner in which it proposes to operate the IMO-administered markets or direct the operations and maintain the reliability of the IMO-controlled grid during the period in which the waiver would be in effect;
- Identification as to whether the facility or equipment that is the subject-matter of the waiver application:
 - ◆ Was in service or was returned to service on the date on which the obligation or standard to which the waiver application relates came into force;
 - ◆ Was ordered by the waiver applicant on or prior to the date on which the obligation or standard to which the waiver application relates came into force; or
 - ◆ Was in the process of construction on or prior to the date on which the obligation or standard to which the waiver application relates came into force.

Submission Information:

Darlington NGS Waiver Plan

Chapter 4, section 3.1.3 and Appendix 4.2 requires generators rated above 10 MVA to meet the same standard as large generators. Standby generators rated 21.5 MW have been installed at Darlington to provide Class 3 power when it is not available from the grid. Occasionally one of the four generators can be dispatched for peaking purposes. The unit characteristics are appropriate for their primary role, but do not meet all the requirements for large generators.

The plan is to operate with the waiver in place and provide peaking power when the system is short of resources.

PART 3 – SUBMISSION IN SUPPORT OF WAIVER APPLICATION (CONTINUED)

There are 4 standby generators at Darlington rated at 21.5 MW and 0.8 lagging power factor. They are powered by gas turbines. Normally three of the generators must be configured to provide power to the Class 3 loads. When all four are available, normally one can be connected to the system through a system service transformer to provide peaking power when required.

The gas turbine stand by units are extremely light in comparison to the nuclear steam turbines which are the heaviest units on the system. Any impact on system behaviour due to the 21.5 MW gas turbine generator will be swamped by the four 935 MW generators which have an inertia constant of 10.08 MW-sec/MVA and which have high gain static exciters to hold the voltage at the desired set point.

The standby units do not meet the following sections of Appendix 4.2:

Ref 1 – The units have no leading power factor capability at rated active power (see attached capability curve).

Ref 3 – The units will disconnect from the system at 58 Hertz (see waiver D7)

Ref 7 – Protection is appropriate for units embedded in a nuclear station

Ref 9 – Existing monitoring will be maintained

Ref 10 – Communication through existing channels to main control room

Ref 11 – Testing and compliance will be appropriate to their primary function as Standby Power Sources

Ref 12-15 Not applicable to existing generation.

The generators at Darlington existed before the new IMO controlled market was introduced. The system has operated with these constraints at Darlington for over 10 years. The waiver is required to operate the equipment at its current capability for the life of the equipment.

Reliability of Grid/non-discriminatory access/impact on IMO-administered market/undue preference:--

In OPGI's opinion, the waiver if granted would not threaten the ability of the IMO to direct operations or maintain reliability of the IMO controlled GRID, nor would it threaten the ability of the IMO to ensure non-discriminatory access to the IMO controlled GRID, nor would it impact on the ability of the IMO to operate the IMO administered market in an efficient, competitive and reliable manner, nor would it provide the waiver applicant with an undue preference within the IMO administered markets.

Impact on OPGI of waiver not being granted:--

If OPGI is not granted waivers for these items, the peaking resources of the standby generators would not be available to supply the Ontario grid when required by the IMO for grid security.

PART 4 – SUMMARY OF SUBMISSIONS IN SUPPORT OF THE WAIVER APPLICATION

Please summarize the information provided in Part 3. This summary will be posted on the IMO public Web site.

Summary:

The waiver request is for a relaxation of the obligation to provide the same level of performance for the 21.5 MW units, which may be used occasionally for system peaking, as is required for the adjacent 935 MW units as required by Chapter 4, section 3.1.3 and Appendix 4.2 of the Market Rules.

PART 5 – SUPPORTING DOCUMENTATION TO BE ATTACHED BY WAIVER APPLICANT

Please list below all supporting documents attached to this waiver application.

1. Waiver Applicant's Plan (must be attached)
2. Generator Capability Curve
- 3.
- 4.
- 5.

PART 6 – CERTIFICATION

The undersigned hereby declares that the information contained in and submitted in support of this document is, to the best of the waiver applicant's knowledge, complete and accurate. By signature the waiver applicant agrees that information may be posted on the IMO public Web site in accordance with the provisions of *Market Manual 2: Market Administration – Part 2.2: Waiver Application and Assessment*.

D. H. MacAlpine
Name (Please Print)

Section Mgr - Electrical Systems
Title

[Signature]
Signature

July 9/2001
Date

PART 7 – FOR IMO USE ONLY

Received by: _____

Date Received: _____

Application Completion Date: _____

Waiver ID #: _____

Date Requested: _____