



Independent
Electricity
Market Operator

Waiver Application (General Process)

WVR 011051

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 - Pickering A Waiver #3</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@ontariopowergeneration.com</u> | |
| Web Site (URL): _____ | |

PART 1 – GENERAL INFORMATION (CONTINUED)

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|--|------------------------------|
| 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@ontariopowergeneration.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>Chapter 4, Appendix 4.2, Reference 16</u> | |
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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:

Pickering A NGS Waiver Plan

Chapter 4, Appendix 4.2, Reference 16 sets out the requirements for speed governors. The Pickering A governors do not meet these requirements. The droop setting is approximate and the deadband is wider than specified. The closely coupled Pickering B units will compensate for the deficiencies in the pickering A governor characteristics.

The plan is to operate with the waiver in place and rely on manual power reductions in the event of over generated islands.

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

The governors on the Pickering A units are the old mechanical hydraulic design rather than the more modern electro-hydraulic design. The speed sensing is by fly-balls and the valve opening is controlled by the flow of low pressure oil through variable orifices. This system does not have the accuracy of speed measurement from a toothed wheel and the precise valve positioning of high pressure servo valves. Hence the dead band is in the range of +/- 60 to 70 millihertz. The steady state droop will be quite close to 4% but instantaneously it could vary between 3% and 5%. The presence of the Pickering B units with more precise governors will compensate for the deficiencies in the Pickering A governors.

In the event of an undergenerated or low frequency situation, when the unit is operating normally at full output, it will remain at full power to supply the system and assist in restoring frequency subject to the limitations described in waiver #2.

In an over generated situation where the load in the island is less than approximately 30% of the generation in the island, the governor action will be overridden automatically by the shaft acceleration detector. It will close the steam valves for 5 seconds. This device will also run the speeder gear to the station load position so the power output to the grid will be negligible.

The Generators at Pickering A existed before the new IMO controlled market was introduced and the system has operated with these constraints on the Pickering A units for about 30 years. Pickering A was in an overgenerated island in the mid 1970s. The governing functions have been improved since that time.

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.

It would not 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 OPG of waiver not being granted:--

If OPGI was not granted waivers for non complying equipment, it would be necessary to replace the entire governing system. This would involve a significant capital investment. Reference the attached OPGI Briefing Note provided to IMO management in July 2000.

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 on control systems to have an accurate droop setting, a deadband of less than +/- 36 mHz and any devices that inhibit governor response shall be automatically disabled by frequency deviations not larger than +/- 100 mHz as required by Chapter 4, 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. Briefing note
- 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*.

Sead Dahdoub Section Manager - Commissioning
Name (Please Print) Title

[Signature] 9 - Feb 2007
Signature Date

PART 7 – FOR IMO USE ONLY

Received by: _____ Date Received: _____
Application Completion Date: _____ Waiver ID #: _____
Date Requested: _____