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Ministry of the Environment, Conservation and Parks  
Ministère de l'Environnement, de la Protection de la nature et des Parcs

**AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 3847-4HVR3G

Notice No. 1

Issue Date: March 15, 2023

Ontario Power Generation Inc.  
7263 Highway #33 West  
Bath, Ontario  
K0H 1G0

**Site Location:** Lennox Generating Station  
7263 Highway #33 West  
Bath, County of Lennox & Addington

*You are hereby notified that I have amended Approval No. 3847-4HVR3G issued on March 30, 2000 for the Lennox Generating Station , as follows:*

**The following description is revoked;**

- burning of fuel oils with a maximum sulphur content of 2.0 percent by weight in four (4) identical power boilers manufactured by Combustion Engineering Ltd. and having a maximum heat input of 5,074 gigajoules per hour per boiler, all exhausting into the atmosphere through two identical stacks (two boilers per stack), each having an exit diameter of 7.3 metres and extending 198.2 metres above grade;

**and replaced with;**

- burning of fuel oils in four (4) identical power boilers manufactured by Combustion Engineering Ltd. and having a maximum heat input of 5,074 gigajoules per hour per boiler, all exhausting into the atmosphere through two identical stacks (two boilers per stack), each having an exit diameter of 7.3 metres and extending 198.2 metres above grade;

**The following definitions are revoked;**

(j) "Manager" means the Manager, Technology Standards Section, Standards Development Branch of the Ministry, or any other person who represents and carries out the duties of the Manager as those duties relate to the conditions of this Certificate;

(l) "Ministry" means Ontario Ministry of the Environment;

**and replaced with;**

(j) "Manager" means the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, as those duties relate to the conditions of this Approval;

(l) "Ministry" means the ministry of the government of Ontario responsible for the EPA and includes all employees or other persons acting on its behalf;

**The following definitions form part of the Approval;**

1. "Ambient Monitoring Plan" means a document or set of documents which describe measures to monitor sulphur dioxide, nitrogen oxide and meteorological parameters in the area of the Facility;
2. "Approval" means this entire Environmental Compliance Approval, and any Schedules to it;
3. "Boiler Stacks" means the two identical stacks through which the four (4) power boilers exhaust;
4. "CLC" means the Community Liaison Committee established under Condition 17;
5. "Continuous Monitoring Plan" means a document that describes the Continuous Monitoring System that the Company will use for continuous monitoring;
6. "Continuous Monitoring System" means the continuous monitoring equipment, data acquisition system and associated operating, maintenance, verification and auditing procedures described in the Continuous Monitoring Plan;
7. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
8. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
9. "Fuel Sulphur Content" means the total sulphur content of the residual fuel oil from the most recent sample collected under Condition 16.2;
10. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution – Local Air Quality, made under the EPA;
11. "Operations Manual for Air Quality Monitoring in Ontario" means the Ministry publication "Operations manual for air quality monitoring in Ontario", dated May 14, 2019, as amended;
12. "Production Threshold" means electrical output, in megawatts, as specified in Schedule B;
13. "Public Notification System" means the public notification system developed in

accordance with Condition 17.3 of this Approval;

14. "Report EPS 1/PG/7" means the document titled "Protocols and Performance Specifications for Continuous Monitoring of Gaseous Emissions from Thermal Power Generation - Report EPS 1/PG/7" published by Environment Canada in December 2005, as modified; and
15. "Site-Specific Standard" means an air standard, approved under section 35 of O.Reg. 419/05 and has the same meaning as in section 32 and section 35 of O.Reg. 419/05.

## **SUPPLEMENTARY TERMS AND CONDITIONS**

**The following terms and conditions form part of the Approval;**

### **13. PUBLIC NOTIFICATION**

1. The Company shall notify the public through the Public Notification System, as soon as reasonably possible:
  - a. when the production level of the Facility exceeds the Production Threshold specified in Schedule B while burning residual fuel oil; and
  - b. when the production level is subsequently reduced to below the level described above.
2. The Company shall notify the public through the Public Notification System, as soon as reasonably possible, after two consecutive 5-minute sulphur dioxide concentrations measured at any monitoring station exceed 530 micrograms per cubic metre or when the 1-hour rolling average sulphur dioxide concentration measured at any monitoring station exceeds 320 micrograms per cubic metre.
3. The notification referred to in Condition 13.2 shall include information about potential health effects of the measured sulphur dioxide concentrations.

### **14. AMBIENT MONITORING**

1. The Company shall develop an Ambient Monitoring Plan:
  - a. for the continuous monitoring of concentrations of sulphur dioxide

- and nitrogen oxide at locations near the facility; and
- b. for the operation of a 10 metre meteorological tower.
2. The Ambient Monitoring Plan shall:
- a. be prepared in accordance with the Operations Manual for Air Quality Monitoring in Ontario;
  - b. include the locations of two (2) monitoring stations agreed upon with the District Manager;
  - c. include the timeline for installation and commencement of operation of the continuous monitoring stations and meteorological tower;
3. The Company shall submit the Ambient Monitoring Plan to the District Manager not later than sixty (60) days after the date of this amendment to the Approval or as otherwise agreed to in writing by the District Manager.
4. The Company shall finalize the Ambient Monitoring Plan in consultation with the District Manager.
5. Upon approval of the Ambient Monitoring Plan by the District Manager, the company shall immediately implement the Ambient Monitoring Plan in accordance with the timeline included in the Ambient Monitoring Plan.
6. The Company shall obtain written authorization from the District Manager prior to the implementation of any changes to the Ambient Monitoring Plan.
7. A record of all quality-assured 5-minute and 1-hour rolling average sulphur dioxide concentrations measured during each calendar year shall be retained for a minimum of five (5) years and made available for review by the Ministry upon request.
8. A record of all quality-assured 1-hour average nitrogen oxide concentrations measured during each calendar year shall be retained for a minimum of five (5) years and made available for review by the Ministry upon request.

## **15. QUARTERLY REPORTING**

1. The Company shall prepare quarterly summary reports summarizing the results of the sulphur dioxide and nitrogen oxide monitoring required under Condition 14 including:
  - a. identification of each location at which a measurement was taken;
  - b. a summary of the total number of 1-hour sulphur dioxide concentrations at or above 100 micrograms per cubic metre;
  - c. a summary of the total number of 1-hour nitrogen oxide concentrations at or above 400 micrograms per cubic metre;
  - d. for each of the sulphur dioxide and nitrogen oxide readings identified above, the Company shall also include the following information regarding each episode:
    - i. date;
    - ii. time;
    - iii. monitoring station;
    - iv. 5-minute average concentrations from which the hourly average was determined;
    - v. duration of episode;
    - vi. wind speed;
    - vii. wind direction; and
    - viii. surface temperature.
2. The Company shall submit each quarterly summary report to the District Manager within 30 days of the end of the period being reported upon.

## **16. RESIDUAL FUEL OIL**

1. The Company shall only receive residual fuel oil if the total sulphur content is less than or equal to 0.5 percent by weight.
2. The Company shall, once every two (2) weeks, collect and test a sample of the residual fuel oil to determine the total sulphur content, specific gravity and net heating value.
3. The Company shall only use residual fuel oil with a total sulphur

content of less than or equal to 0.85 percent by weight at the Facility during the first five (5) years after the date of this amendment to the Approval is made and less than or equal to 0.6 percent by weight on an annual average basis thereafter.

4. The Company shall maintain and retain for a minimum of five (5) years, a record of:
  - a. the total sulphur content in each order of residual fuel oil accepted at the Facility; and
  - b. the results of the testing required by Conditions 16.2 which includes the date on which the sample was taken and the results of the test.

## **17. COMMUNITY LIAISON COMMITTEE (CLC)**

1. The Company shall take all reasonable steps to establish, maintain and participate in a CLC, and ensure that:
  - a. the CLC includes at least:
    - i. one (1) management representative from the Company;
    - ii. one (1) representative from the community;
    - iii. one (1) representative from each local, previously engaged Indigenous community; and
    - iv. one (1) representative from KFL&A Public Health;
  - b. the District Manager is kept informed of the CLC activities and invited to all CLC meetings; and
  - c. the CLC meets, at a minimum, once annually.
2. The Company shall develop terms of reference in consultation with the CLC.
3. The Company shall establish a Public Notification System in consultation with the CLC. The District Manager shall be copied on all communications sent through the Public Notification System.

## **18. COMMUNITY ENGAGEMENT REPORT**

1. An annual Community Engagement Report shall be prepared by the Company for the preceding calendar year by March 31 of each calendar year.
2. The Community Engagement Report shall include:
  - a. documentation of all environmental complaints from the public regarding the operation of the equipment approved by this Approval, and their resolutions;
  - b. a written summary of the implementation of each Action Plan as defined in any Site-Specific Standard issued to the Company;
  - c. a summary of any notifications required under Condition 13.1;
  - d. a summary of any notifications required under Condition 13.2;
  - e. a table summarizing:
    - i. the residual fuel oil sulphur content, specific gravity, and heating values of each test required by Condition 16.2;
    - ii. the amount of electricity produced when the residual fuel oil was used;
  - f. the maximum, average, and minimum measured 5-minute sulphur dioxide concentrations at each monitoring station;
  - g. a summary of the information in the quarterly summary reports required under Condition 15;
  - h. a copy of the Emission Summary Table;
  - i. the maximum and average 1-hour sulphur dioxide and nitrogen dioxide emission rates for the preceding calendar year obtained from the Continuous Monitoring System;
  - j. the number of predicated 1-hour sulphur dioxide concentrations above 100 micrograms per cubic metre, 320 micrograms per cubic metre and 690 micrograms per cubic metre based on the number of hours the Continuous Monitoring System measures above an emission threshold that has been derived from dispersion modelling;
  - k. the number of predicated 1-hour nitrogen oxide concentrations above 400 micrograms per cubic metre based on the number of hours the Continuous Monitoring System measures above an emission threshold that has been derived from dispersion modelling;

- l. a summary of the total sulphur content, specific gravity, and the net heating value of each order of residual fuel oil received at the Facility; and
    - m. the minutes of the CLC meetings during that calendar year and any related follow-up actions.
3. The Company shall submit an electronic copy of the Community Engagement Report for the preceding year to the District Manager and make the report available for public inspection by posting on the Company's website by March 31 of each calendar year.

## **19. CONTINUOUS MONITORING**

1. The Company shall submit, to the Manager, not later than sixty (60) days from the date of this amendment to the Approval, a Continuous Monitoring Plan for the Continuous Monitoring System to continuously monitor and record sulphur dioxide concentration and nitrogen oxide concentration in the undiluted flue gases leaving the Boiler Stacks.
2. The Continuous Monitoring Plan shall include descriptions of the following:
  - a. process description of the Boilers;
  - b. parameters requiring continuous monitoring and measurement ranges;
  - c. sample probe and gas calibration port location(s) and associated flue gas conditions;
  - d. sample extraction, transport and conditioning system;
  - e. analyzer performance specifications;
  - f. relative accuracy and reference method for test audit;
  - g. performance indicators and monitoring frequency;
  - h. communication protocol(s) and corrective action regarding malfunctions;
  - i. preventative maintenance and spare parts;
  - j. service contractor and staff responsibilities including training;
  - k. QA/QC procedures and relevant operating and maintenance



- procedures as applicable;
  - I. data acquisition system; and
  - m. data verification procedures.
3. The Company shall finalize the Continuous Monitoring Plan in consultation with the Manager.
  4. The Company shall procure, install, operate and maintain the Continuous Monitoring System not later than six (6) months after the Manager has approved the Continuous Monitoring Plan. A current electronic copy of the Continuous Monitoring Plan shall be kept at an accessible location for easy access by persons responsible for supervising, operating or maintaining the Continuous Monitoring System and associated data as well as by a Ministry representative, upon request.
  5. The Continuous Monitoring System shall be operated and maintained so that accurate and quality-assured data is obtained a minimum of 80 percent of the time annually in accordance with Section 6.5.1 of Report EPS 1/PG/7.

## **20. COMPLAINTS RECORDING AND REPORTING**

1. If at any time, the Company receives an environmental complaint from the public regarding the operation of the equipment approved by this Approval, the Company shall take the following steps:
  - a. Record and number each complaint, either electronically or in a log book. The record shall include the following information:
    - i. the time and date of the complaint and incident to which the complaint relates;
    - ii. the nature of the complaint;
    - iii. wind direction at the time and date of the incident to which the complaint relates; and
    - iv. the address of the complainant if the complainant consents to provide it;
  - b. Notify the District Manager of the complaint within two (2) business days after the complaint is received, in a manner

acceptable to the District Manager.

- c. Initiate any appropriate steps to address the complaint.
- d. Complete and retain on-site a report written within five (5) business days of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

## **21. APPROVAL AMENDMENT**

1. The Company shall apply for a review of this Approval not later than one (1) year from the date of this amendment to the Approval.

**The following schedule forms part of the Approval;**

### **SCHEDULE B**

#### **Production Threshold Calculation Procedure**

The Company shall calculate the Production Threshold according to the following formula:

- $\text{Production Threshold (in megawatts)} = 625.3 / \text{Fuel Sulphur Content}$

The Fuel Sulphur Content is expressed as the total weight percent sulphur in the fuel. For example, for a sulphur content of 0.6 percent by weight, use a value of 0.6 in the equation.

The reason(s) for this amendment to the Approval is (are) as follows:

#### **1. PUBLIC NOTIFICATION**

Condition No. 13 is included to require the Company to provide information on the Facility operations to the local community.

#### **2. AMBIENT MONITORING**

Condition No. 14 is included to require the Company to gather accurate information so that compliance with the EPA can be verified.

### 3. **QUARTERLY REPORTING**

Condition No. 15 is included to require the Company to provide information to the Ministry, to assist the Ministry with the review of the site's compliance with this Approval.

### 4. **RESIDUAL FUEL OIL**

Condition No. 16 is included to provide minimum performance requirements considered necessary to implement the Action Plan.

### 5. **COMMUNITY LIAISON COMMITTEE and COMMUNITY ENGAGEMENT REPORT**

Conditions No. 17 and 18 are included to require the Company to engage the local community for dissemination, consultation, review and exchange of information regarding the operation of the Facility.

### 6. **CONTINUOUS MONITORING**

Condition No. 19 is included to require the Company to gather accurate information so that compliance with the EPA, O.Reg. 419/05 and this Approval can be verified.

### 7. **COMPLAINTS RECORDING AND REPORTING**

Condition No. 20 is included to require the Company to respond to any environmental complaints regarding the operation of the Equipment, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

### 8. **APPROVAL AMENDMENT**

Condition No. 21 is included to require the Company to submit an application for review of this Approval.

**This Notice shall constitute part of the approval issued under Approval No. 3847-4HVR3G dated March 30, 2000**

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me and the Ontario Land Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the *Environmental Protection Act* provides that the Notice requiring the hearing shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act*, a hearing may not be available with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in

an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar\*  
Ontario Land Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5  
OLT.Registrar@ontario.ca

and

The Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*  
Ministry of the Environment, Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or [www.olt.gov.on.ca](http://www.olt.gov.on.ca)**

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 15th day of March,  
2023



Nancy E Orpana, P.Eng.  
Director  
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

KS/  
c: District Manager, MECP Kingston - District