

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER: 0001106042

Version: 1.0

Issue Date: 08/16/2019

Pursuant to section 20.3 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 and subject to all other applicable Acts or regulations this Environmental Compliance Approval is issued to:

**Client Name:** SKYLINE REAL ESTATE LIMITED PARTNERSHIP**Address:** Street Information: 5 DOUGLAS Street  
Unit: 301  
City/Town: GUELPH  
Municipality: GUELPH  
State/Province: ONTARIO  
Postal Code: N1H2S8  
Country: Canada

For the following site:

**Site Name:** 64 Roehampton**Site Location:** Street Information: 64 ROEHAMPTON Avenue (AVE)  
Postal Code: L2M 7P5  
City/Town: ST CATHARINES  
Municipality: ST. CATHARINES  
State/Province: ONTARIO  
Country: CANADA  
MECP District/Area Office: Niagara District Office

This Environmental Compliance Approval includes the following:

<b>Section</b>	<b>Contents</b>
1	Activity Description
2	Definitions
3	Terms and Conditions
4	Reasons
5	Schedules

**Section 1: Activity Description**

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:*

- one (1) natural gas-fired ICHP Capstone C65 microturbine generator, used for domestic hot water and electricity generation, having a maximum power rating of 65 kilowatts of electrical output, and discharging to the air at a maximum volumetric flow rate of 0.8 actual cubic metre per second through a stack having an exit diameter of 0.25 metre and discharging at 36 metres above grade;

all in accordance with the Environmental Compliance Approval application submitted by R. Jason Ashdown, Skyline Incorporated, as a general partner for and on behalf of Skyline Real Estate Limited Partnership, received May 15, 2018, the Emission Summary and Dispersion Modelling Report signed by Peter Piersol, Ortech Consulting Inc. and dated March 20, 2018, the Acoustic Assessment Report signed by Marcus Li, Novus Environmental Inc. and dated March 5, 2018, and all other supporting information and documentation submitted in support of the application including the email dated September 18, 2018 provided by Peter Piersol, Ortech Consulting Inc.

## **Section 2: Definitions**

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. *"Fuel Flow Rate"* means the flow rate of the fuel, expressed in cubic metres per second at standard temperature and pressure, or kilograms per second;
2. *"Heat Output"* means the total useful heat energy recovered from the *Microturbine* as heat, expressed in megawatts;
3. *"Lower Heating Value"* means the energy released during combustion of the fuel, excluding the latent heat content of the water vapour component of the products of combustion, expressed in megajoules per cubic metre at standard temperature and pressure, or megajoules per kilogram;
4. *"Microturbine"* means the high pressure natural gas-fired ICHP Capstone C65 65 kilowatt microturbine described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
5. *"Nitrogen Oxides"* means oxides of nitrogen, including nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>);
6. *"Power Output"* means the electricity and shaft power production of the *Microturbine*, expressed in megawatts;
7. *"Thermal Efficiency"* means the thermal efficiency of the *Microturbine* calculated according to the formula described in Schedule "B" attached to this *Approval*.
8. *"Company"* means Skyline Real Estate Holdings Inc., as a general partner for and on behalf of Skyline Real Estate Limited Partnership that is responsible for the construction or operation of the *Facility* and includes any successors and assigns;
9. *"Equipment"* means the equipment or processes described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
10. *"Facility"* means the entire operation located on the property where the *Microturbine* is located;
11. *"Approval"* means this Environmental Compliance Approval, including the application and supporting documentation listed above;
12. *"District Manager"* means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;
13. *"Manual"* means a document or a set of documents that provide written instructions to staff of the *Company*;

14. "*Ministry*" means the ministry of the government of Ontario responsible for the *EPA* and includes all officials, employees or other persons acting on its behalf;
15. "*Publication NPC-300*" means the *Ministry* Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources - Approval and Planning, Publication NPC-300", August 2013, as amended.
16. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;

### **Section 3: Terms and Conditions**

*You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:*

#### **1. PERFORMANCE REQUIREMENTS**

1. The *Company* shall ensure, that the *Microturbine* is designed and operated to comply, at all times, with the following performance requirements:
  - a. The concentration of *nitrogen oxides* and carbon monoxide in the undiluted flue gas leaving the *Microturbine* is not greater than the limits specified in Schedule A of this *Approval*.
  - b. The *Thermal Efficiency* of the *Microturbine* is not less than the efficiency specified in the Schedule A of this *Approval*.

#### **2. EMISSION MONITORING**

1. For the *Microturbine*, the *Company* shall determine the rate of emissions of *nitrogen oxides* and carbon monoxide, using portable monitors, when the *Microturbine* is operating at maximum rating or at maximum load achievable at the time of the monitoring, within three (3) months after commencement of operation of the *Microturbine*.
2. The *Company* shall submit a report on the above *Microturbine* emission monitoring to the *District Manager* not later than three (3) months after completing the emission monitoring. The report shall include, as a minimum:
  - a. an executive summary;
  - b. date, time and results of the emission monitoring and the loading of the *Microturbine* at the time of emission monitoring;
  - c. specification of the portable monitors used in the emission monitoring; and
  - d. emission concentrations of *nitrogen oxides* and carbon monoxide (in ppmv at 15% O<sub>2</sub>) obtained in the emission monitoring of the *Microturbine*.

#### **3. OPERATION AND MAINTENANCE**

1. The *Company* shall ensure that the *Microturbine* is properly operated and maintained at all times. The *Company* shall:
  - a. prepare, before commencement of operation of the *Microturbine*, and update, as necessary, a *Manual* outlining the operating procedures and a maintenance program for the *Microturbine*, including:
    - i. routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the *Microturbine* supplier;
    - ii. emergency procedures;
    - iii. procedures for any record keeping activities relating to operation and maintenance of the *Microturbine*; and

- iv. all appropriate measures to minimize noise and odour emissions from all potential sources;
  - b. implement the recommendations of the *Manual*.
2. The *Company* shall perform a test, when the emission monitoring of the *Microturbine* is conducted, to determine the *Thermal Efficiency* of the *Microturbine*. For the *Microturbine*, the *Company* shall:
  1. determine, as a minimum, the parameters described in Schedule "B" of this *Approval*, during the *Thermal Efficiency* testing of the *Microturbine*;
  2. calculate the *Thermal Efficiency* of the *Microturbine* according to the formula described in Schedule "B" of this *Approval*;
  3. prepare a summary on the results of the *Thermal Efficiency* testing no later than three (3) months after completing the test. The summary shall indicate the *Thermal Efficiency* of the *Microturbine* and include all parameters described in Schedule "B" of this *Approval*.
  4. if the measured *Thermal Efficiency* is less than the anticipated *Thermal Efficiency* specified in Schedule "B" of this *Approval* (with a tolerance of 0.05 multiplied by the anticipated *Thermal Efficiency*), notify the *Ministry* so that the concentration limits specified in Schedule "A" of this *Approval* could be revised accordingly.

#### 4. RECORD RETENTION

1. The *Company* shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this *Approval*, and make these records available for review by staff of the *Ministry* upon request. The *Company* shall retain:
  - a. all records on the maintenance, repair and inspection of the *Microturbine*; and
  - b. all records of any environmental complaints, including:
    - i. a description, time and date of each incident to which the complaint relates;
    - ii. wind direction at the time of the incident to which the complaint relates; and
    - iii. a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

#### 5. NOTIFICATION OF COMPLAINTS

1. The *Company* shall notify the *District Manager*, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:
  - a. a description of the nature of the complaint; and
  - b. the time and date of the incident to which the complaint relates.

#### 6. NOISE

1. The *Company* shall, at all times, ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*.

### Section 4: Reasons

*The reasons for the imposition of these terms and conditions are as follows:*

1. Conditions No. 1 and 6 are included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Facility*.

2. Condition No. 2 is included to require the *Company* to gather accurate information so that the environmental impact and subsequent compliance with the *EPA*, the Regulations and this *Approval* can be verified.
3. Condition No. 3 is included to emphasize that the *Microturbine* must be maintained and operated according to a procedure that will result in compliance with the *EPA*, the Regulations and this *Approval*.
4. Condition No. 4 is included to require the *Company* to keep records and to provide information to staff of the *Ministry* so that compliance with the *EPA*, the Regulations and this *Approval* can be verified.
5. Condition No. 5 is included to require the *Company* to notify staff of the *Ministry* so as to assist the *Ministry* with the review of the site's compliance.

## Section 5: Schedules

- Schedule A

	PARAMETER	LIMIT
1.	Nitrogen Oxides	40 ppmv*
2.	Carbon Monoxide	60 ppmv*
3.	Thermal Efficiency	70 percent

\* "ppmv" means parts per million by volume at Reference Conditions (ambient temperature at 15 degrees Celsius, 60 percent relative humidity and 101.3 kilopascals barometric pressure) on a dry volume basis normalized to 15 percent oxygen.

- Schedule B

### PARAMETERS:

1. Power Output
2. Heat Output
3. Fuel Flow Rate
4. Lower Heating Value
5. Meteorological Parameters:
  1. ambient air temperature (expressed in degree of Celsius)
  2. barometric pressure (expressed in kilopascal)
  3. relative humidity (expressed in percent)
6. Date, time and duration of test.

### FORMULA:

$$\text{Thermal Efficiency} = \frac{(\text{Power Output} + \text{Heat Output}) \times 100\%}{\text{Fuel Flow Rate} \times \text{Lower Heating Value}}$$

**NOTE:**

*Thermal Efficiency* testing should be conducted, for the *Microturbine*, at maximum rating or at the maximum load achievable at the time of testing and shall employ an averaging time of not less than three hours.

*In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, S.O. 1993, c. 28 (Environmental Bill of Rights), the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. 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.

*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:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5

AND

The Environmental  
Commissioner  
1075 Bay Street, Suite 605  
Toronto, Ontario  
M5S 2B1

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 Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at [www.ebr.gov.on.ca](http://www.ebr.gov.on.ca), you can determine when the leave to appeal period ends.*

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

DATED AT TORONTO this 16th day of August, 2019

c: Roy Ashdown



Jeffrey Mckerrall

Director

Appointed for the purposes of Part II.1 of the  
Environmental Protection Act