

Appendix A

Current Environmental Compliance Approval (Air/Noise)



Ministry
of the
Environment

Ministère
de
l'Environnement

CERTIFICATE OF APPROVAL
AIR
NUMBER 7958-7BMQGT
Issue Date: April 29, 2008

Ridge (Chatham) Holdings, L.P.
135 Queen's Plate Drive, Suite 300
Toronto, Ontario
M9W 6V1

Site Location: Ridge Landfill at 20262 Erieau Road
Part of Lots 13 - 16 Concession 4
Chatham-Kent Municipality, Ontario

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

- one (1) landfill gas fired electricity generation facility, having a rating of 9.6 megawatts, consisting of:
- six (6) engine-generator sets each in its own acoustical enclosure, each having a rating of 1.6 megawatts, firing on landfill gas collected at the landfill site, combusting up to 0.245 standard cubic metre per second of landfill gas, each discharging into the atmosphere at a maximum volumetric flow rate of 5.89 actual cubic metres per second, through its individual stack, having an exit diameter of 0.41 metre, extending 7.9 metres above grade;
- six (6) mufflers, one (1) for each engine-generator set landfill gas engine combustion exhaust, each capable of providing the following values of acoustic Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hertz)	63	125	250	500	1000	2000	4000	8000
Insertion-Loss (decibel)	30	50	50	30	30	28	30	30

- six (6) enclosures, one (1) for each engine-generator set, for a total of six (6), each capable of providing the following values of acoustic Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hertz)	63	125	250	500	1000	2000	4000	8000
Insertion-Loss (decibel)	-	13	16	23	24	29	36	-

- two (2) electrically driven blowers, used to draw landfill gas from the vertical wells and leachate cleanouts into the landfill gas collection system;
- two (2) electrically driven compressors, used to compress the landfill gas collected up to the pressure required for the engine-generator sets; and
- one (1) electrically driven landfill gas aftercooler, used for cooling of the landfill gas after the compression in the compressors and before being fed to the engine-generator sets;
- six (6) electrical transformers, each with a capacity of 2 MVA and a NEMA sound rating of 61 dBA @ 2 m;
- three (3) enclosed flares, two (2) used to combust the surplus landfill gas generated but not used in the landfill gas engines and one (1) used as a contingent flare in case the landfill gas engines are not operated, each with a maximum capacity of combusting up to a maximum of 1.0 standard cubic metres per second of landfill gas, each exhausting into the atmosphere at a maximum volumetric flow rate of 47.1 actual cubic metres per second, through a stack, having an exit diameter of 2.9 metres and extending 11.6 metres above grade; and

all in accordance with the Application for Approval (Air & Noise), dated December 18, 2007 and signed by Tim Kozlof,

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Ridge (Chatham) Holdings, L.P., and all information and documentation associated with the application including additional information provided by Dillon Consulting Limited on behalf of Ridge (Chatham) Holdings, L.P., dated March 3, 2008, March 28, 2008 and signed by Alex Ballez, P.Eng.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

1. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Facility, assessed to determine compliance with the Performance Limits for the Facility regarding noise emissions, completed in accordance with the procedures set in Publication NPC-103 and reported in accordance with Publication NPC-233.
2. "Acoustic Audit Report" means a report presenting the results of an Acoustic Audit, prepared in accordance with Publication NPC-233.
3. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a Facility.
4. "Act" means the *Environmental Protection Act*.
5. "CEM System" means the continuous monitoring and recording system, one for each Flare, used to optimize the operation of the Flare, as described in this Certificate, including Schedule "A", to the extent approved by this Certificate.
6. "Certificate" means this Certificate of Approval, including Schedule "A", issued in accordance with Section 9 of the Act.
7. "Company" means Ridge (Chatham) Holdings, L.P.
8. "District Manager" means the District Manager, Sarnia District Office, Southwestern Region of the Ministry.
9. "Equipment" means the one (1) landfill gas fired electricity generating facility and the three (3) enclosed flares described in the Company's application, this Certificate and in the supporting documentation submitted with the application, to the extent approved by this Certificate.
10. "Facility" means the entire operation located on the property where the Equipment is located.
11. "Flare" means any one of the three (3) enclosed flares described in the Company's application, this Certificate and in the supporting documentation submitted with the application, to the extent approved by this Certificate.
12. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report or the design/implementation of Noise Control Measures for the Facility and/or Equipment. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment or the design/implementation of Noise Control Measures for the Facility and/or Equipment.
13. "Manual" means a document or a set of documents that provide written instructions to staff of the Company.
14. "Ministry" means the Ontario Ministry of the Environment.
15. "Publication NPC-232" means Ministry Publication NPC-232, "Sound level Limits for Stationary Sources in Class 3 Areas (Rural)", October 1995.
16. "Publication NPC-103" means Ministry Publication NPC-103 "Procedures" of the Model Municipal Noise Control By-Law, Final Report, August 1978.
17. "Publication NPC-233" means Ministry Publication NPC-233 "Information to be Submitted for Approval of Stationary Sources of Sound" , October 1995.

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

TERMS AND CONDITIONS

PERFORMANCE

1. The Company shall, at all times, ensure that the noise emissions from the Facility comply with the limits determined in accordance with Ministry Publication NPC-232.
2. The Company shall operate the Flare in such a manner that, when the Flare is operated, a minimum temperature, as recorded by the CEM System, shall be 760 degrees Celsius at a point representing a minimum retention time of 0.6 second.

OPERATION AND MAINTENANCE

3. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:
 - (1) prepare, not later than three (3) months prior to the commencement of operation of two (2) of the three (3) flares, a Manual outlining the operating procedures and a maintenance program for the two (2) flares. These operating procedures and the maintenance program in the Manual shall be updated as necessary. When the rest of the Equipment completes installation, the Manual has to be updated, prior to the commencement of operation of those pieces of equipment, with the operating procedures and maintenance program for those pieces of equipment, with update as necessary. The Manual shall include, as a minimum, the following:
 - (a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment and the CEM System suppliers;
 - (b) calibration procedures of the CEM System;
 - (c) emergency procedures and procedures to prevent upset conditions;
 - (d) procedures to record the date and time when each of the landfill gas fired engine-generator sets is operated, and the procedures to monitor and record the quality e.g. methane content and quantity of landfill gas delivered to the landfill gas fired engine-generator sets for electricity generation and the quantity of electricity generated in each of the landfill gas fired engine-generator sets;
 - (e) procedures to record the date and time when each of the flares is operated, and the procedures to monitor and record the quality e.g. methane content and quantity of landfill gas delivered to the flares for flaring;
 - (f) procedures for any record keeping activities relating to operation, maintenance and repair of the Equipment;
 - (g) procedures to record process upsets/upset conditions and the remedial actions taken to respond to the upsets;
 - (h) all appropriate measures to minimize noise and odorous emissions from all potential sources;
 - (i) procedures for recording and responding to complaints regarding the operation of the Equipment;
 - (2) implement the procedures, measures and recommendations of the Manual.

RECORD RETENTION

4. 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 Certificate, and make these records available for review by staff of the Ministry upon request. The Company shall retain:
 - (1) all records on the maintenance, repair and inspection of the Equipment and the CEM System;
 - (2) all records produced by the CEM System;

- (3) all records on the operation of the Equipment;
- (4) all records generated in the acoustic audit measurements;
- (5) all records of process upsets/upset conditions and remedial actions taken to respond to the upsets;
- (6) all records of any environmental complaints; including:
 - (a) a description, time and date of each incident to which the complaint relates,
 - (b) wind direction at the time of the incident to which the complaint relates, and
 - (c) 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.

NOTIFICATION OF COMPLAINTS

5. 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:

- (1) this Certificate number;
- (2) a description of the nature of the complaint;
- (3) the time and date of the incident to which the complaint relates;
- (4) 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.

ACOUSTICAL AUDIT

6. The Company shall carry out acoustic audit measurements on the actual noise emissions due to the operation of the Facility, in accordance with the procedures in Publication NPC-103.

7. The Company shall submit a report on the results of the acoustic audit, prepared by an Independent Acoustical Consultant, in accordance with the requirements of Publication NPC-233, to the District Manager and the Director not later than three (3) months after the commencement of operation of the Equipment.

8. The Director may not accept the results of the acoustic audit if the requirements of Publication NPC-233 were not followed.

9. If the Director does not accept the results of the acoustic audit the Director may require the Company to repeat the acoustic audit.

SCHEDULE "A"

PARAMETER: Temperature

LOCATION:

The sample point for the Continuous Temperature Monitor shall be located in the combustion chamber where the minimum retention time of the combustion gases at a minimum temperature of 760 degrees Celsius for at least 0.6 second is achieved.

PERFORMANCE:

The Continuous Temperature Monitor shall meet the following minimum performance specifications for the following parameters.

PARAMETER SPECIFICATION

1. Type: shielded "K" type thermocouple or equivalent
2. Accuracy: ± 1.5 percent of the minimum gas temperature

RECORDER:

The recorder must be capable of registering continuously the measurement of the monitor without a significant loss of accuracy and with a time resolution of 5 minutes or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time, on a monthly basis, when the enclosed flare systems are in operation.

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

1. Condition No. 1 is 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 provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Flare.
3. Condition No. 3 is included to emphasize that the Equipment including the CEM System must be maintained and operated according to a procedure that will result in compliance with the Act, the regulations and this Certificate.
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 Act, the regulations and this Certificate 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.
6. Conditions No. 6 and 7 are included to require the Company to gather accurate information so that the environmental impact and subsequent compliance with the Act, the regulation and this Certificate can be verified.
7. Conditions No. 8 and 9 are included to ensure that the acoustic audit is carried out in accordance with procedures set in the Ministry's Noise Guidelines.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, S.O. 1993, Chapter 28, 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:

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

The Notice should also include:

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3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

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

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
2300 Yonge St., Suite 1700
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Environmental Commissioner
1075 Bay Street, 6th Floor
Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director
Section 9, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 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.ene.gov.on.ca, you can determine when the leave to appeal period ends.

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 29th day of April, 2008

Victor Low, P.Eng.
Director

RW/
c: District Manager, MOE Sarnia District Office
Area Supervisor, MOE Windsor Area Office
Alex Ballez, P.Eng., Dillon Consulting Limited