



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

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 3151-C7G9WY
Issue Date: January 31, 2022

Vertex Environmental Inc.
40 McBrine Drive
Kitchener, Ontario
N2R 1E7

Site Location: Mobile

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) mobile remediation system for the treatment of contaminated soil vapour, discharging to the air through one (1) stack equipped with a minimum of two (2) granular activated carbon units connected in series, having a maximum volumetric flow rate of 0.472 cubic metre per second, an exit diameter of 0.102 metre, and extending 6.4 metres above grade;

all in accordance with the Environmental Compliance Approval Application submitted by Vertex Environmental Inc., dated November 22, 2019 and signed by Bruce Tunnicliffe, President; the supporting information, including the Emission Summary and Dispersion Modelling Report submitted by Vertex Environmental Inc., dated October 15, 2021 and signed by Nathan Lichti; and the Acoustic Assessment Report prepared by Vertex Environmental Inc., dated July 30, 2021 and signed by Nathan Lichti.

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

1. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility. "Acoustic Assessment Report" also means the Acoustic Assessment Report prepared by Vertex Environmental Inc., dated July 30, 2021 and signed by Nathan Lichti, PEng;
2. "Acoustic Barrier" means a barrier or berm positioned such that it completely interrupts the line of sight between the Facility and the noise sensitive Points of Reception continuous without holes, gaps and other penetrations, and having surface mass of at least 20 kilograms per square metres;
3. "Class 1 Area" means an area with an acoustical environment typical of a major population centre,

where the background sound level is dominated by the activities of people, usually road traffic, often referred to as “urban hum”;

4. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 Area and Class 3 Area:
 - a. sound levels characteristic of Class 1 Area during daytime (07:00 to 19:00 or to 23:00 hours); and
 - b. low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);
5. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as:
 - a. a small community;
 - b. agricultural area;
 - c. a rural recreational area such as a cottage or a resort area; or
 - d. a wilderness area;
6. "Company" means Vertex Environmental Inc., which is responsible for the operation of the Process and Equipment and includes any successors and assigns;
7. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically being operated;
8. "EPA" means the Environmental Protection Act, R.S.O. 1990, c. E.19;
9. "Equipment" means the equipment associated with the Process as described in this Approval;
10. "ESDM Report" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of O. Reg. 419/05 and the Procedure Document by Nathan Lichti of Vertex Environmental Inc., and dated October 15, 2021 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval and all supplemental supporting information;
11. "Exhausted" means the capacity of the GAC to adsorb contaminant emissions is reached, and the granular activated carbon filter unit is no longer able to effectively reduce emissions;
12. "Facility" means the entire operation located on the property where the Equipment is located;

13. "GAC" means granular activated carbon;
14. "Influent Concentrations" means the concentration of the contaminants in the untreated soil vapour feed to the inlet of the GAC as established in the ESDM Report;
15. "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;
16. "Noise Control Measures" means measures to reduce the noise emissions from the Facility/Equipment including, but not limited to, silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers, described in the Company's application, this Approval and in the supporting documentation referred to herein, to the extent approved by this Approval;
17. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
18. "Operating Procedures and Maintenance Manual" means the written operating procedures and maintenance manual developed for the Company as described in Condition 3;
19. "Point of Reception" means a point of reception as defined in Publication NPC-300;
20. "Process" means the remediation 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;
21. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995;
22. "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;
23. "Remedial Work Plan" means a plan, developed for the Site, prepared as a single document as described in Condition 2;
24. "Schedule" means the schedules attached to, and forming part of, this Approval, namely:
 - Schedule "A" - Minimum Required Separation Distances;
 - Schedule "B" - Form 1: Soil/Groundwater Remediation Process Notice of Intended Location.
25. "Sensitive Receptor" means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from discharges from the Equipment and Process to the atmosphere, including one or a combination of:
 - a. as private residences or public facilities where people sleep (eg: single and multi-unit dwellings,

- nursing homes, hospitals, trailer parks, camping grounds, etc.);
- b. institutional facilities (eg: schools, churches, community centres, day care centres, recreational centres, etc.);
 - c. outdoor public recreational areas (eg: trailer parks, play grounds, picnic areas, etc.); and
 - d. other outdoor public areas where there are continuous human activities (eg: commercial plazas and office buildings).
26. "Site" means any property or properties described in a completed Schedule "B" at which the Process is operated;
27. "SPCP" means the written Spill Prevention and Contingency Plan developed for the Company as described in Condition 4; and
28. "Target Compounds" means the contaminants in the soil vapour as described in the Company's application, this Approval, and in the supporting documentation submitted with the application, to the extent approved by this Approval, that the Process is designed to treat as part of the Remedial Work Plan.

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

TERMS AND CONDITIONS

1. PERFORMANCE REQUIREMENTS

1. The Company shall, for each Site, design and operate the Process and Equipment with the intent to reduce the concentrations of the Target Compounds;
2. The Company shall, for each Site, before commencement of operation of the Process and Equipment, prepare the following;
 - i. Remedial Work Plan; and
 - ii. Operating Procedures and Maintenance Manual.
3. The Company shall, for each Site, ensure that the Influent Concentrations does not exceed the influent contaminant concentration thresholds established in the ESDM Report.
4. The Company shall, for each Site, ensure that the GAC maintains a minimum removal efficiency of 75% when it is in operation; and

5. The Company shall, for each Site, ensure a minimum separation distance of 10 metres is maintained between the Facility and the nearest Sensitive Receptor.

2. REMEDIAL WORK PLAN

1. The Company shall, before commencement of operation of the Process and Equipment at the Site, prepare a Remedial Work Plan designed with specific application for the Site that specifies, as a minimum:
 - a. the remedial objectives established for the Site;
 - b. an overview of the work to be undertaken by the Company;
 - c. a description of the Site;
 - d. land uses at the Site and in the immediate surrounding vicinity;
 - e. locations of on-Site and off-Site Sensitive Receptors;
 - f. a Site plan overview of the extent of contamination at the Site; and
 - g. alternative remedial measures to be undertaken in the event that the Process is not successful to meet the Remedial Work Plan objectives.

3. OPERATION AND MAINTENANCE

1. The Company shall, before commencement of operation of the Process and Equipment at the Site, prepare and implement a Site specific Operating Procedures and Maintenance Manual for the Equipment and Process that specifies, as a minimum:
 - a. major components of the Equipment to be used in the Process;
 - b. frequency of inspections and scheduled maintenance for the Equipment;
 - c. procedures to inspect, test and replace the GAC before it is Exhausted;
 - d. procedures to measure and maintain the Influent Concentrations;
 - e. procedures to prevent and/or minimize, monitor and record odour from the Facility, including measures to address odour complaints resulting from the operation of the Process and Equipment;
 - f. procedures to prevent and/or minimize noise and fugitive dust emissions;

- g. the SPCP procedures to prevent spills relating to the Process and Equipment;
 - h. contingency measures to address upset conditions;
 - i. procedures to record and respond to environmental complaints; and
 - j. steps to be carried out for the discontinuation of the Process.
2. The Company shall ensure that the GAC is not Exhausted when it is in operation.

4. SPILL PREVENTION AND CONTINGENCY PLAN

1. The Company shall prepare, and implement a written spill prevention and contingency plan that is applicable to the Process and Equipment at the Site. The SPCP shall include appropriate measures to mitigate spills that may result from the Process and Equipment, including different spill sizes, types of contaminants, and receiving environments (including land, natural waterways, and municipal sewers). The SPCP shall include as a minimum the following information commensurate with the risk of spills at the Site:
- a. containment procedures;
 - b. treatment, neutralization and/or clean up procedures;
 - c. disposal procedures that are in accordance with the EPA, and/or municipal by-laws and other legislation as applicable;
 - d. securement of necessary equipment;
 - e. notification procedures; and
 - f. details of the training procedures.
2. The Company shall ensure that employees and agents of the Company have been trained on the SPCP prior to commencement of the Process at the Site.
3. The Company shall review and update the SPCP as needed.

5. NOISE

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

2. The Company shall, for each Site ensure, that the Acoustic Barrier, when required, is erected within 7 working days of start-up of the Facility and until that time the Facility operations shall be restricted to the daytime hours of 7 a.m. to 7 p.m., Monday to Friday.
3. The Company shall, for each Site, ensure the minimum separation distance as specified in Schedule "A" is maintained between the Facility and the nearest Point of Reception.
4. The Company shall, for each Site, implement prior to the commencement of operation of the Equipment the following Noise Control Measures:
 - a. the Acoustic Barrier, when required, is implemented at all times during the operation of the Facility;
 - b. the Acoustic Barrier, when required, is a minimum 2.5 metres high, 18 metres long, continuous without holes, gaps or other penetrations, and having a surface mass density of at least 20 kilograms per square metre, and that it will be positioned in between the Facility and the Points of Reception that require shielding in such a way that the distance from the Acoustic Barrier to the Facility is not greater than 2.5 metres as depicted in Figure 3 of the Acoustic Assessment Report; and
 - c. the Acoustic Barrier, when required, is properly maintained and continues to provide the acoustical performance outlined in the Acoustic Assessment Report.

6. NOTIFICATION REQUIREMENTS

1. The Company shall notify the District Manager at least ten (10) calendar days, or at such other time as may be agreed to in writing by the District Manager, before commencement of operation of the Process at any Site by submitting a completed Form 1, set out in Schedule "B" of this Approval, with attachments, to the District Manager.
2. The Company shall notify the District Manager, in writing, forthwith if the Process is not carried out in accordance with the Performance Requirements outlined in Condition 1.
3. The Company shall notify the District Manager, in writing, forthwith within two (2) business days of each complaint that the Company receives resulting from the operation of the Process at the Site. The notification shall include the information described in paragraph (d) of Condition 7.

7. RECORD KEEPING REQUIREMENTS

1. The Company shall, for each Site, retain for a minimum of five (5) years from the date of their creation, all reports, records, and information as described in this Approval, related to or resulting from the operation of the Process and Equipment at the Site including:
 - a. the Remedial Work Plan;

- b. records about the inspection, maintenance, and repair of the major components of the Equipment related to the Process;
- c. all testing and sampling results related to the Influent Concentrations and the Equipment; and
- d. records about complaints, including:
 - i. a description of the time and date of the complaint and of the incident to which the complaint relates;
 - ii. the nature of the complaint and the address of the complainant, if known;
 - iii. weather conditions at the time of the incident to which the complaint relates;
 - iv. a description of the measures taken to determine the possible causes of the complaint and the steps taken to investigate and deal with the cause of the incident to which the complaint relates and the steps taken and/or to be taken to prevent a similar occurrence in the future; and
 - v. a written response to the complainant, if known.

SCHEDULE "A"

Minimum Required Separation Distances from the Facility to the Points of Reception

Table 1: Operating Scenario 1 – without Acoustic Barrier

Publication NPC-300 Acoustical Area	Time of Operation	Sound Level Limit (dBA)	Minimum Separation Distance (metres)
Class 1	Day (7 a.m. to 7 p.m.)	50	31
Class 1	Evening (7 p.m. to 11 p.m.)	50	31
Class 1	Night (11 p.m. to 7 a.m.)	45	31
Class 2	Day (7 a.m. to 7 p.m.)	50	31
Class 2	Evening (7 p.m. to 11 p.m.)	45	31
Class 2	Night (11 p.m. to 7 a.m.)	45	31
Class 3	Day (7 a.m. to 7 p.m.)	45	31
Class 3	Evening (7 p.m. to 11 p.m.)	40	53
Class 3	Night (11 p.m. to 7 a.m.)	40	53

Table 2: Operating Scenario 2 - with Acoustic Barrier

Publication NPC-300 Acoustical Area	Time of Operation	Sound Level Limit (dBA)	Minimum Separation Distance (metres)
Class 1	Day (7 a.m. to 7 p.m.)	50	11
Class 1	Evening (7 p.m. to 11 p.m.)	50	11
Class 1	Night (11 p.m. to 7 a.m.)	45	11
Class 2	Day (7 a.m. to 7 p.m.)	50	11
Class 2	Evening (7 p.m. to 11 p.m.)	45	11
Class 2	Night (11 p.m. to 7 a.m.)	45	11
Class 3	Day (7 a.m. to 7 p.m.)	45	11
Class 3	Evening (7 p.m. to 11 p.m.)	40	19
Class 3	Night (11 p.m. to 7 a.m.)	40	19

Notes:

The Acoustic Barrier shall have a height of not less than 2.5 metres above local grade and a length of not less than 18 metres such that it will break the line-of-sight between the Facility and all Points of Reception. The Acoustic Barrier must be located at a distance of not more than 2.5 metres from the Facility as depicted in Figure 3 of the Acoustic Assessment Report.

SCHEDULE "B"

Form 1

SOIL/GROUNDWATER REMEDIATION PROCESS NOTICE OF INTENDED LOCATION

1. Owner and/or Operator:
 - a. Company name:
 - b. Environmental Compliance Approval (Air) number:
 - c. Contact person:
 - d. Telephone number:
2. Proposed Location:
 - a. Municipality:
 - b. Street address or Lot and Concession number:
3. Land use in the immediate vicinity:
4. Operating schedule:
 - a. Date of commencement:
 - b. Estimated duration:
 - c. Hours of operation:

Please attach the following:

- a. A plan showing the area(s) within the Site where the Process will be operated;
- b. An overview of the Process to be used at the Site, including a description of the technology (or technologies) and delivery method(s) to be used; and
- c. An overview of the Site specific Remedial Work Plan and the Operating Procedures and Maintenance Manual that have been drafted and will be finalized before commencement of operation of the Process at the Site and will be implemented at the Site as required by this Approval.

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

1. Condition No. 1 is included to outline the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Process.
2. Condition No. 2 is included to require the Company to gather accurate information and prepare a work plan prior to carrying out the Process at the Site and so that compliance with the EPA and this Approval can be verified.
3. Condition No. 3 is included to emphasize that the Equipment and Process must be 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 prevent and mitigate spills thereby minimizing adverse environmental impacts.
5. Condition No. 5 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility/Equipment and to emphasize that the Facility/Equipment must be maintained and operated according to a procedure that will result in compliance with the EPA, the regulations and this Approval.
6. Condition No. 6 is included to require the Company to notify the Ministry so that the environmental impact and subsequent compliance with the EPA, the regulations, and this Approval can be verified.
7. Condition No. 7 is included to require the Company to retain records and provide information to the Ministry so that the environmental impact and subsequent compliance with the EPA, the regulations, and this Approval can be verified.

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, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks 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 Director appointed for the purposes of

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

AND

The Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

AND

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**

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 <https://ero.ontario.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 31st day of January, 2022



Bijal Shah, P.Eng.

Director

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

BR/

c: District Manager, MECP Guelph
Nathan Lichti, Vertex Environmental Inc.