

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 2347-BEJRKP

Issue Date: August 22, 2019

GFL Environmental Inc.
100 New Park Place, Unit #500
Vaughan, Ontario
L4K 0H9

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:

- three (3) mobile active aeration bioremediation units for the ex-situ remediation of Biocells of soil impacted with petroleum hydrocarbons, each discharging to the air through two (2) stacks, each equipped with one (1) granular activated carbon unit, having a maximum volumetric flow rate of 0.20 cubic metre per second, an exit diameter of 0.064 metre, extending 1.52 metres above grade, and operated in accordance with the operating scenarios outlined in Schedule "A"; and
- two (2) mobile mechanical aeration bioremediation processes for the ex-situ treatment of Biocells of soil impacted with petroleum hydrocarbons and operated in accordance with the operating scenarios outlined in Schedule "A";

all in accordance with the following,

1. Environmental Compliance Approval Application, dated November 30, 2018 and signed by Damian Rodriguez, VP Soils Operations; the supporting information including the Emission Summary and Dispersion Modelling report prepared by Airzone One Ltd., dated November 30, 2018 and signed by Lucas Neil; the Acoustic Assessment Report prepared by Airzone One Ltd., dated March 2018 and signed by Lucas Neil;
2. Environmental Compliance Approval Application, dated September 29, 2016 and signed by Damian Rodriguez, VP Soils Operations; the supporting information including the Emission Summary and Dispersion Modelling report prepared by Airzone One Ltd., dated September 30, 2016 and signed by Lucas Neil; the Acoustic Assessment Report prepared by Airzone One Ltd., dated September, 2016 and signed by Lucas Neil; email updates provided by Lucas Neil of Airzone One Ltd., on December 13, 2016, and January 25, February 3, February 6, February 7, and February 10, 2017.

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*. It also means the acoustic assessment report prepared by AirZone One Ltd., dated March 2018 and signed by Lucas Neil;
2. "*Approval*" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
3. "*Biocell*" means a treatment cell for *Contaminated Soil* undergoing biological treatment with active aeration through air injection or mechanical mixing;
4. "*Company*" means GFL Environmental Inc., which is responsible for the operation of the *Process* and includes any successors and assigns;
5. "*Contaminated Soil*" means soil impacted with petroleum hydrocarbons to undergo bioremediation at the site or transfer off-site;
6. "*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";
7. "*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);
8. "*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. small community;
 - b. agricultural area;
 - c. a rural recreational area such as a cottage or a resort area; or
 - d. a wilderness area;
9. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically being operated;
10. "*EPA*" means the *Environmental Protection Act*, R.S.O. 1990, c. E.19;
11. "*Equipment*" means the equipment associated with the *Process* as described in

this *Approval*;

12. "*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 Airzone One Ltd., dated November 30, 2018 and signed by Lucas Neil, submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*;
13. "*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;
14. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
15. "*GAC*" means granular activated carbon;
16. "*Manual*" means a document or a set of documents that provide written instructions to staff of the *Company*;
17. "*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;
18. "*Noise Control Measures*" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers;
19. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
20. "*Operating Procedures and Maintenance Manual*" means the written operating procedures and maintenance manual developed for the *Company* as described in Condition 3;
21. "*Point of Reception*" means a point of reception as defined in *Publication NPC-300*;
22. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
23. "*Process*" means the ex-situ 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*;
24. "*Publication NPC-233*" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended;
25. "*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;

26. "*Remedial Work Plan*" means a plan, developed for the *Site*, prepared as a single document as described in Condition 2;
27. "*Rural Land Use*" means the land use characterization as determined by the "Air Dispersion Modelling Guide for Ontario", Version 3.0, February 2017, as amended;
28. "*Schedule*" means the schedules attached to, and forming part of, this *Approval*, namely:
 - Schedule "A" - Operating Scenarios;
 - Schedule "B" - Minimum Required Separation Distances;
 - Schedule "C" - Form 1: Soil/Groundwater Remediation Process Notice of Intended Location.
29. "*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/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).
30. "*Site*" means any property or properties described in a completed *Schedule* "C" at which the *Process* is operated;
31. "*SPCP*" means the written Spill Prevention and Contingency Plan developed for the *Company* as described in Condition 4;
32. "*Target Compounds*" means the soil contaminants 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*; and
33. "*Urban Land Use*" means the land use characterization as determined by the "Air Dispersion Modelling Guide for Ontario", Version 3.0, February 2017, as

amended.

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*,
 - a. design and operate the *Process* with the intent to reduce the soil concentrations of the *Target Compounds*;
 - b. before commencement of operation of the *Process*, prepare the following;
 - i. *Remedial Work Plan*; and
 - ii. an *Operating Procedures and Maintenance Manual*.
 - c. ensure that each *Biocells* constructed in accordance with the *ESDM Report*;
 - d. ensure that the *Biocells* and *Equipment* at the *Site* are configured in accordance with the *ESDM Report*;
 - e. ensure that the *GAC* units maintain a minimum removal efficiency of 98% when in operation;
 - f. restrict the operations of the *Facility* to the period of 7:00 AM to 7:00 PM;
 - g. ensure a minimum separation distance between the *Facility* and the nearest *Point of Reception* as specified in *Schedule "B"*;
 - h. ensure a minimum separation distance between the *Facility* and the nearest *Sensitive Receptor* as specified in *Schedule "B"*; and
 - i. ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*.
2. The *Company* shall not treat *Contaminated Soil* at the *Site* with a concentration of Benzene (Chemical Abstracts Service Registry Number 71-43-2) that exceeds 1.25 microgram per gram of soil.

2. REMEDIAL WORK PLAN

1. The *Company* shall, before commencement of operation of the *Process* 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*;
- g. a *Site* plan showing the configuration of the *Biocells* and the locations of the proposed *Equipment*; and
- h. 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* 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 record the operation of the *Process* including the quantity of *Contaminated Soil* treated in the *Facility* and the quantity of *Contaminated Soil* in each *Biocell*;
 - d. procedures to test, monitor, and record the degree of hydrocarbon contamination of the soil at the *Facility*;
 - e. procedures to inspect, test and replace the *GAC* before it is *Exhausted*;
 - f. procedures to prevent and/or minimize, monitor and record odour from the *Facility* and measures to address odour complaints resulting from the operation of the *Facility*;
 - g. procedures to prevent and/or minimize noise and fugitive dust emissions;
 - h. the *SPCP* procedures to prevent spills relating to the *Process*;
 - i. contingency measures to address upset conditions;
 - j. procedures to record and respond to environmental complaints; and
 - k. steps to be carried out for the discontinuation of the *Process*.

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* at the *Site*. The *SPCP* shall include appropriate measures to mitigate spills that may result from the *Process*, 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*s as needed.

5. FUGITIVE DUST CONTROL

1. The *Company* shall provide effective dust suppression for each *Biocell*, the *Equipment*, and any other sources of fugitive dust emissions from the *Facility*.

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 "C"* 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 (e) 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* at the *Site* including:

- a. the *Remedial Work Plan*;
- b. records about the type and quantity of *Remedial Amendments* used in the *Process*;
- c. records about the inspection, maintenance, and repair of the major components of the *Equipment* related to the *Process*;
- d. all soil testing and sampling results; and
- e. 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"

Operating Scenarios

Operating Scenario	Aeration Process	Number of Regenerative Blowers	Maximum Number of Biocells	Maximum Volume of Soil in Biocell (tonnes)
1	Active	2	10	3,000
2	Active	2	10	3,000
3	Active	4	20	3,000
4	Active	4	20	3,000
5	Active	6	30	3,000
6	Active	6	30	3,000
7	Mechanical	n/a	10	4,500
8	Mechanical	n/a	10	4,500

SCHEDULE "B"

Minimum Required Separation Distances

All distances are measured from the nearest *Point of Reception* or *Sensitive Receptor* to the closest point of the *Facility*.

Minimum Required Separation Distance from *Point of Reception*

Acoustical Area	Unshielded Minimum Separation Distance – Daytime (07:00 – 19:00)		
	Two (2) Regenerative Blowers	Four (4) Regenerative Blowers	Six (6) Regenerative Blowers
Class 1(Urban)	43 m	60 m	74 m
Class 2 (Suburban)	43 m	60 m	74 m
Class 3(Rural)	76 m	107 m	131 m

Minimum Required Separation Distance from *Sensitive Receptor*

Operating Scenario	Minimum Separation Distance (metres)	
	Urban Land Use	Rural Land Use
1	10	28
2	11	39
3	16	76
4	43	98
5	30	140
6	38	164
7	40	116
8	45	126

SCHEDULE "C" 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* is going to 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.
4. 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*.
- 5.
6. Condition No. 4 is included to require the *Company* to prevent and mitigate spills thereby minimizing adverse environmental impacts.
- 7.
8. Condition No. 5 is included to emphasize that the *Equipment* must be maintained

and operated according to a procedure that will result in compliance with the *EPA*, the Regulations and this *Approval*.

9.

10. 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.

11.

12. 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

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 0866-AJCRWZ issued on February 10, 2017

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.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required 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:

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

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**

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 22nd day of August,
2019

Jeffrey McKerrall, P.Eng.
Director
appointed for the purposes of Part
II.1 of the *Environmental Protection
Act*

BR/
c: Area Manager, MECP Cornwall
c: District Manager, MECP Ottawa
Lucas Neil, Airzone One Ltd.