

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 1774-BRQJHN

Issue Date: January 13, 2021

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

Site Location: 17335 Allaire Road, Moose Creek
North Stormont Township, United Counties of Stormont, Dundas and Glengarry
Ontario
K0C 1W0

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:

A liquid industrial and hazardous liquid waste transfer station and an ex-situ soil *Bioremediation Facility*, for the receipt and treatment by *Biopiles* or *Biocells*, of non-hazardous *Dry Soil* impacted with petroleum hydrocarbons, metals and road salt, with a maximum soil storage and processing capacity of 35,000 tonnes of *Dry Soil* at any time, comprising the following processes and associated equipment:

- one (1) Soil Storage Area in which incoming non-hazardous *Dry Soil* impacted with petroleum hydrocarbons is unloaded from trucks, applied with an initial dose of *Biostimulation Compound / Bioaugmentation Compound*, and stored for subsequent processing through *Biopiles* or *Biocells*. The Soil Storage Area includes areas for construction and deconstruction of *Biopiles*. Each *Biopile* will not exceed a height of 12 metres;
- eight (8) *Biocells*, each measuring 25 metres by 25 metres and a maximum height of 3 metres and comprising the following:
 - for each *Biocell*, a concrete or asphalt pad, on which the mixture of the *Dry Soil* and the required *Biostimulation Compound(s) / Bioaugmentation Compound(s)* intended for *Bioremediation* at the *Facility*, is placed and covered with an impermeable covering membrane, with additional aeration piping, a dripline type irrigation system and soil gas monitoring devices installed in the stockpile;
 - up to eight (8) regenerative blowers, located in the Environmental Control Building, actively aerating one (1) or more *Biocells*, with one (1) blower for each *Biocell* or one (1) blower shared between two (2) *Biocells*, and only one (1) blower is operating at any time to draw air from the *Biocells* on a rotating basis through the aeration piping in the *Biocells* and recirculating the air back

to the *Biocells*;

- one (1) *Biocell* area to be used as a *Solidification* pad for *Liquid Soil*, when not in use as a *Biocell*;
- up to two (2) microbe tanks, located in the Environmental Control Building, each having a capacity no greater than 10,000 litres;
- a liquid industrial and hazardous liquid waste transfer station including four (4) double-walled, above-ground fixed tanks, each with a capacity of 65,000 litres; and
- one (1) pad for the *Solidification* of waste sludges and slurries;

all in accordance with the Application for Approval submitted by GFL Environmental Inc., dated September 24, 2019 and signed by Damian Rodriguez, VP Soil Operations; and the supporting information, including the Emission Summary and Dispersion Modelling Report, submitted by Hemmera Envirochem Inc., dated September 2019 and signed by Lucas Neil and all additional information in support of the application submitted by Lucas Neil, Hemmera Envirochem Inc. and the *Company* .

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

1. "*Approval*" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
2. "*Best Management Practices Plan*" means the document titled "Best Management Practices Plan - Fugitive Dust Emissions (Moose Creek Facility) - Revision (III)", dated June 2019 and prepared by GFL Environmental Inc.;
3. "*Bioaugmentation Compound*" means the currently exogenous, non-pathogenic and non-toxic, specialized or genetically engineered microbes to optimize *Bioremediation*. In this *Approval*, it means the compound(s) described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application including the Safety Data Sheets (SDSs) submitted with the application, to the extent approved by this *Approval*;
4. "*Biocell*" means the *Bioremediation* treatment cell, with dimensions of 25 metres by 25 metres and a maximum height of 3 metres, including a concrete or asphalt pad, for *Dry Soil* undergoing *Bioremediation*, with air injection and *Bioaugmentation Compound(s)* and/or *Biostimulation Compound(s)*, covered with a tarp during the treatment process 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*;

5. "*Bioremediation*" means biodegradation conducted under controlled engineered conditions designed to reduce petroleum hydrocarbon concentrations in the *Dry Soil* in the *Biocells* and the *Biopiles*, 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*;
6. "*Biostimulation Compound*" means any chemical amendment, nutrient amendment or pH adjustment chemical, other than a *Bioaugmentation Compound*, used in the *Process* to enhance bioremediation. In this *Approval*, it means the compound(s) described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application including the Safety Data Sheets (SDSs) submitted with the application, to the extent approved by this *Approval*;
7. "*Biopile*" means the *Bioremediation* treatment cell up-to 12 metres in height, for *Dry Soil(s)* undergoing *Bioremediation* without air injection and where measured oxygen concentrations within the pile are no less than 15% and with the initial *Dry Soil* contaminant concentrations are 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*;
8. "*Company*" means GFL Environmental Inc., that is responsible for the construction or operation of the *Facility* and includes any successors and assigns;
9. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;
10. "*Dry Soil*" has the same meaning as defined in the *Waste Approval*;
11. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended
;
12. "*Facility*" means the entire operation located on the property where the *Process* is located;
13. "*Liquid Soil*" has the same meaning as defined in the *Waste Approval*;
14. "*Manual*" means a document or a set of documents that provide written instructions to staff of the *Company*;
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. "*Process*" means the soil *Bioremediation* process and *Solidification* process described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
17. "*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;

18. "*Solidification*" has the same meaning as defined in the *Waste Approval*;
19. "*Source Site*" means means the source of the incoming *Dry Soil*; and
20. "*Waste Approval*" means the Environmental Compliance Approval and any Schedules attached to it, including the application and its supporting documentation for activities set out in section 27 of the *EPA* and carried out at the *Facility*.

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. OPERATION AND MAINTENANCE

1. The *Company* shall ensure that the *Process* is properly operated and maintained at all times. The *Company* shall:
 - a. prepare, not later than three (3) months after the date of this *Approval*, and update, as necessary, a *Manual* outlining the operating procedures and a maintenance program for the *Facility*, including:
 - i. routine operating and maintenance procedures in accordance with good engineering practices and as recommended by equipment suppliers;
 - ii. frequency of inspections and scheduled preventative maintenance of the *Process*, including procedures to monitor and record the degree of contamination of the soil by petroleum hydrocarbons, metals and road salt delivered to the *Facility* for treatment;
 - iii. procedures to record the operation of the *Process* including the quantity of soil received and stored in the *Facility*, quantity of soil in each *Biopile* and *Biocell* and amount of *Biostimulation Compound(s)* / *Bioaugmentation Compound(s)* applied during the *Process*;
 - iv. procedures to monitor and record odour from the *Facility* and procedures/measures to address any odour issues at the *Facility*;
 - v. procedures and measures to prevent or minimize noise and odorous emissions from all potential sources,

- vi. procedures to prevent upset conditions and contingency measures;
 - vii. emergency procedures, including spill clean-up procedures;
 - viii. procedures for any record keeping activities relating to operation and maintenance of the *Facility*;
 - ix. procedures to record any environmental complaints; and
- b. implement the recommendations of the *Manual*.
2. The *Company* shall only conduct screening of the *Dry Soil* and construction/deconstruction of the *Biopiles / Biocells*, between 7:00 a.m. and 5:00 p.m.
 3. 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*.
 4. Upon receiving *Dry Soil* at the *Facility* with a concentration of Benzene (Chemical Abstracts Service Registry Number 71-43-2) higher than 0.117 microgram per gram as measured at the *Source Site*, the *Company* shall immediately apply an initial dose of *Biostimulation Compound / Bioaugmentation Compound* to such *Dry Soil* and immediately treat it within a *Biocell* thereafter.

2. FUGITIVE DUST CONTROL

1. The *Company* shall implement the *Best Management Practices Plan* for the control of fugitive dust emissions resulting from the operation of the *Facility*. The *Company* shall update the *Best Management Practices Planas* necessary or at the direction of the *District Manager*.

3. RECORD RETENTION

1. The *Company* shall retain, for a minimum of ten (10) 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 operation, maintenance, repair of the *Process* and associated equipment and inspection of the *Facility*;
 - b. all records on the operation of the *Process* including the quantity of *Dry Soil* received, the concentration of Benzene (Chemical Abstracts Service Registry Number 71-43-2) in microgram per gram as measured at the *Source Site* every time *Dry Soil* with Benzene is received at the *Facility*, quantity of soil in each *Biopile / Biocell*, amount of *Biostimulation Compound / Bioaugmentation Compound* applied, etc. ;

c. all records on the environmental complaints as required by Condition 4.

4. COMPLAINT MANAGEMENT

1. A designated representative of the *Company* shall be available to receive public complaints caused by the operations at the *Facility*, twenty-four (24) hours per day, seven (7) days per week.

2. If at any time, the *Company* receives any environmental complaints from the public regarding the operation of the *Facility*, the *Company* shall respond to these complaints according to the following procedures:

a. Step 1: Receipt of Complaint - The *Company* shall record each complaint in a computerized tracking system. The information recorded shall include the following:

i. the name, address and the telephone number (or contact information) of the complainant, if known;

ii. the date and time of the complaint; and

iii. details of the complaint, including the description and duration of the incident;

b. Step 2: Notification of Complaint - After the complaint has been received by the *Company* and recorded in the tracking system, the *Company* shall, immediately notify, either the *District Manager* by phone during office hours or the *Ministry's* Spills Action Centre at 1-800-268-6060 after office hours;

c. Step 3: Investigation of Complaint - The *Company* shall immediately initiate investigation of the complaint. The investigation shall include, as a minimum, the following:

i. determination of the activities undertaken in the *Facility* at the time of the complaint;

ii. general meteorological conditions including, but not limited to the ambient temperature, approximate wind speed and its direction, sunny versus cloudy, inversion versus clear and windy, etc. at the time of the complaint;

iii. location of the person who submitted the complaint, if known, at the time of the incident; and

iv. determination if the complaint is attributed to activities being undertaken at the *Facility* and if so, determination of all the possible cause(s) of the complaint;

d. Step 4: Corrective Action - The *Company* shall determine the remedial

- action(s) to address the cause(s) of the complaint and implement the remedial action(s) to eliminate the cause(s) of the complaint, as soon as practicably possible, and to prevent a similar occurrence in the future;
- e. Step 5: Written Response - The *Company* shall forward a formal reply to the complainant, if known, and to the *District Manager* within one (1) week after the receipt of the complaint. The response shall include the results of the investigation of the complaint, the action(s) taken or planned to be taken to address the cause(s) of the complaint, and if follow-up response would be provided; and
 - f. Step 6: Recording - All of the information collected and actions taken must be recorded in the tracking system.

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

1. Condition Nos. 1.1, 1.4 and 2. are included to emphasize that the *Facility* must be maintained and operated according to a procedure that will result in compliance with the *EPA*, the Regulations and this *Approval*.
2. Condition No. 1.2 is included to restrict the operation of the *Facility* beyond operational periods to prevent an adverse effect resulting from the operation of the *Facility*.
3. Condition No. 1.3 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Facility*.
4. Condition No. 3 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; and
5. Condition No. 4 is included to require the *Company* to respond to any environmental complaints resulting from the operations at the *Facility*, appropriately and in a timely manner, and to ensure that appropriate actions are taken to prevent any further incidents that may cause complaints in the future.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 3883-A2TQAG issued on April 4, 2016.

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
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*** 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 13th day of January,
2021

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

KS/

c: Area Manager, MECP Cornwall Area Office
c: District Manager, MECP Ottawa District Office
Lucas Neil, Hemmera Envirochem Inc.