

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 8096-8UEJJJ  
Issue Date: November 8, 2021

GFL Environmental Inc.  
600 Hudson Dr  
Thames Centre, Ontario  
N0L 1G5

Site Location: GFL Environmental Inc.-Dorchester Soil Transfer and Processing Facility  
600 Hudson Dr Dorchester  
Thames Centre Municipality, County of Middlesex  
N0L 1G5

*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:*

The use and operation of a 5.72 hectare Waste Disposal Site (Class 1 soil management site) within a 9.56 hectare total site area;

including one (1) remediation Process for non-hazardous contaminated soils, consisting of the following processes and support units:

1. Biological treatment for non-hazardous waste soils contaminated with petroleum hydrocarbons:
  - one (1) soils receiving and temporary storage area, to be lined with concrete or asphalt;
  - one (1) soil preparation unit, including a mobile shaking/screening unit to pre-process the contaminated soils, equipped with a Biostimulation Compound(s) injection system at the exit of the unit;
  - up to 10 biocells on concrete or asphalt pads and covered with impermeable membranes, each biocell measuring approximately 25 metres by 25 metres with a maximum height of 3 metres and equipped with an active air recirculation system with an air flow rate of 0.3 cubic metre per second;
  - biopiles, measuring not more than 12 metres in height, located in the soils receiving and temporary storage area, for natural remediation;

2. Pilot Electrokinetic treatment for non-hazardous waste soils contaminated with petroleum hydrocarbons, salt and metals:

and including sewage Works for the collection, transmission, treatment and disposal of contact stormwater run-off generated at the GFL Environmental Inc.-Dorchester Soil Transfer, Soil Bank and Processing Facility from open storage of treated contaminated soils, treatment of hydrocarbon contaminated soils using ex-situ bio treatment, located at Part Lot 20 Concession 1, Municipality of Thames Centre, County of Middlesex, discharging to Rath-Harris Municipal Drain and ultimately to the South Branch of the Thames River, consisting of the following:

***PROPOSED WORKS:***

**Hydrocarbon Impacted Soil Bio-Treatment System**

- a bio-treatment system designed to treat hydrocarbon contaminated soils using ex-situ biocells located along the perimeter of the asphalted processing area of the site, equipped with up to two (2) 10 m<sup>3</sup> capacity microbe and nutrient solution storage tanks and up to five (5) air blowers for biocell aeration providing a maximum of 1104 sm<sup>3</sup>/hr air to each biocell; and
- effective cover material to protect biocells from direct contact with rain water and minimize leachate generation;

**Salt and Metal Impacted Soil Treatment System (Pilot Field Testing Project)**

- an electrokinetic (EK3) treatment system designed to treat salt and metal contaminated soils using ex-situ electrokinetic process, comprised of two (2) biocells, each biocell containing a maximum soil volume of 2,400 m<sup>3</sup> (with a maximum height of 3.0 m), equipped with vertical electrodes, leachate extraction and collection system located in the soil piles and at the bottom of the piles, one (1) approximately 20 m<sup>3</sup> capacity fresh water supply tank, and one (1) approximately 20 m<sup>3</sup> capacity leachate storage tank to store leachate produced from the electrokinetic treatment system for off-Site disposal; and
- effective cover material or fixed roof to protect electrokinetic soil piles from direct contact with rain water and minimize leachate generation;

**Contact Stormwater Treatment Facility**

sewage works for the collection, transmission, treatment and disposal of contact stormwater run-off from a total of 4.55 ha drainage area at the Ontario Soil Recycling Dorchester Site discharging to a municipal storm sewer (at Hudson Drive) which drains overland to Rath-Harris Municipal Drain and ultimately to the South Branch of the Thames River, consisting of the following:

- one (1) approximately 300 mm diameter inlet storm sewer, one (1) precast concrete oil and grit separator (Stormceptor Model # STC 4000 or equivalent) with an oil holding capacity of 3,360

litres, a sediment holding capacity of 16,490 litres, and a 50 litres/sec maximum flow treatment capacity, discharging to a stormwater pond described below;

- one (1) wet extended detention contact stormwater management pond, designed to collect stormwater runoff from up to 1:250 year return frequency storm events from a total of 4.55 ha drainage area with a 70% imperviousness, consisting of one (1) 10 m long 300 mm diameter storm sewer and a headwall inlet structure, one (1) 26 m long and 15 m wide and 1.5 m deep forebay equipped with a rip-rap structure, one (1) extended wet detention pond with a permanent pool depth of 1.5 m and volume of 1,200 m<sup>3</sup> (at elevation of 279.75 m), an extended detention depth of 1.5 m and an active detention volume of 2,400 m<sup>3</sup> at elevation of 281.25 m, one (1) reverse slope pond outlet structure consisting of 18.0 m long 250 mm diameter PVC pipe discharging to a pumping station described below;
- one (1) bag filtration system with a peak flow capacity of 4,770 L/min consisting of portable filter vessel capable of housing seven (7) ring top filter bags, each 175 mm diameter and 800 mm long with 10 micron filter rating, to be used for filtration of stormwater pumped from the SWM pond;
- one (1) fine bubble aeration system for diffused SWM pond aeration consisting of one (1) air compressor and air diffuser assembly with a circulation capacity to effect pond turnover of 6,070 m<sup>2</sup> at 2.4 m depth within a 48 hour period;
- one (1) ultrasonic algae control system with up to 70 m treatment range and 20 m transducer cable for seasonal operation to control algae growth in the SWM pond;
- one (1) 1200 mm diameter 3.9 m deep pumping station chamber (MH4) equipped with one (1) 2.0 L/sec to 5.0 L/sec rated capacity submersible pump recycling contact stormwater to soil recycling operations;
- one (1) 40 L/sec rated capacity trash pump and one (1) 1200 mm diameter valve chamber (MH3) equipped with a gate valve, discharging through a 250 mm diameter storm sewer and 1200 mm diameter manhole (MH2);
- one (1) 5.0 m wide rip-rap covered emergency overflow structure at elevation 281.95 discharging overland to the Rath-Harris Municipal Drain; and
- including all controls and associated appurtenances.

All in accordance with the documentation listed in Schedule 'A'.

The Waste Disposal Site is to be used for the transfer, screening and bioremediation of non-hazardous Soils.

This Approval also authorizes receipt and storage for metals, salt and petroleum hydrocarbon- impacted soils for a soil treatment pilot project at the Site.

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

**"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 dated July 4, 2012, prepared by Robert D. Stevens, Corey Kinart of HGC Engineering, and an email dated February 20, 2013 from Robert D. Stevens of HGC Engineering.

**"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.

**"Acoustic Audit Report"** means a report presenting the results of an Acoustic Audit, prepared in accordance with Publication NPC-233.

**"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;

**"Act"** or **"EPA"** means the Environmental Protection Act ;

**"Adverse Effect"** as defined in the *EPA*;

**"Agricultural or Other Use"** as defined by O.Reg. 153/04 made under the *EPA* ;

**"Approval"** means this Environmental Compliance Approval and any Schedules to it.

**"ARA "** means the Aggregate Resources Act, R.S.O. 1990, c. A.8, as amended;

**"Bioaugmentation"** means the use of currently exogenous, specialized microbes or genetically engineered microbes to optimize bioremediation.

**"Biocell"** means soil treatment cells 3 metres in height, undergoing biological treatment, with air injection and amendments, covered during process, as described in item 2 of Schedule A.

**"Biopile"** means soil treatment cells upto 12 metres in height, undergoing biological treatment, for lightly contaminated soils, without air injection, and without cover;

**"Biostimulation Compound"** means any chemical amendment, nutrient amendment or pH adjustment chemicals used in the Process to enhance bioremediation. In this Approval, it means solutions containing microbes and bacteria specified on the "List of Organisms on the Domestic Substances List" prepared and maintained by Environment Canada 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.

**"By-pass"** means any discharge from the Works that does not undergo any treatment or only receives partial treatment before it is discharged to the environment;

**"CBOD5"** means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

**"Class 1 soil management site"** as defined in O. Regulation 406/19;

**"Company"** or **"Owner"** means GFL Environmental Inc., and includes its officers, employees, agents and contractors;

**"Daily Concentration"** means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;

**"Director"** means a person appointed by the Minister pursuant to section 5 of the Act for the purposes of Part II.1 of the Act;

**"District Manager"** means the District Manager, London District Office, Ontario Ministry of the Environment;

**"Dry Soil"** is as defined in O. Regulation 406/19 and within the context of this Approval also means a waste which contains Contaminants of Concern and/or does not contain more than insignificant amounts of incidental debris or other non-hazardous waste, handling of which is subject to the Environmental Compliance Approval requirements under the EPA. Dry Soil is a solid waste that is received at the Site for Bioremediation or for transfer off-Site;

**"ECA "** means Environmental Compliance Approval;

**"EK3"** means the pilot soil treatment process using an induced electrical current between an anode and cathode, as described in item 2 of Schedule A;

**"Excess Soil Criteria"** means the Excess Soil Quality Standards set out in the Soil Rules required for a Reuse Site and also includes the site-specific criteria as set out in Section D of the Soil Rules;

**"Excess Soil Standards"** means the Excess Soil quality criteria set out in the Soil Rules required for a Reuse Site;

**"Excess Soil"** is as defined in O. Regulation 406/19, and within the context of this Approval is the incoming Dry Soil, Liquid Soil and Dry Soil/Rock mixture accepted at the Site to be managed in accordance with this Approval and the Processed Soil and Solidified Liquid Soil transferred from the Site in compliance with the requirements set out in O. Regulation 406/19. If destined for transfer without any screening, Excess Soil also means the incoming Dry Soil which does not contain more Rock than allowed for a particular Reuse Site;

**"Equipment"** means the equipment or processes described in the Company's application, this Approval and in the supporting documentation referred to herein, to the extent approved by this Approval.

**"ESDM Report"** means the Emission Summary and Dispersion Modelling Report prepared in accordance with the Procedure Document, dated December 2011 and submitted in support of the application, and includes all additional information associated with the application.

**"Incoming Soils"** means soils received at the Site for and soils that are currently undergoing processing in the biopiles;

**"Independent Acoustical Consultant"** means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report of 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;

**"Manual"** means a document or a set of documents that provide written instructions to staff of the Company.

**"Ministry"** means the Ontario Ministry of the Environment;

**"mg/kg"** means milligrams per kilogram;

**"NMA "** means *Nutrient Management Act* , 2002, S.O. 2002, c.4, as amended;

**"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, described in the Company's application, Schedule "D" of this Approval and in the supporting documentation referred to herein, including the Acoustic Assessment Report, to the extent approved by this Approval.

**"O.Reg. 153/04"** means Ontario Regulation 153 (Records of Site Condition - Part XV.1 of the Act), as amended;

**"OWRA "** means the *Ontario Water Resources Act* ;

**"PA "** means the *Pesticides Act* ;

**"Permit"** means a fill permit issued for the receiving site under a municipal by-law enacted under section 142 of the *Municipal Act*, S.O. 2001, c.25, as amended, or a development permit for the receiving site granted under a Regulation made pursuant to section 28 of the *Conservation Authorities Act* , R.S.O. 1990. c. C.27, as amended;

**"Phase I ESA"** means Phase I Environmental Site Assessment, as defined in O. Reg. 153/04, as amended;

**"Phase II ESA"** means Phase II Environmental Site Assessment, as defined in O. Reg. 153/04, as amended;

**"Pilot Study"** means the proposed temporary processing of Soils using the EK3 process;

**"Procedure Document"** means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2009, as amended.

**"Process"** means the remediation 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.

**"Processed Soil"** means *Incoming Soil* that was processed at the Site to allow the soil to be transported to one of the destinations identified in Condition 11.2.

**"Proposed Works"** means the sewage works described in the Owner's application, this Approval, to the extent approved by the Approval;

**"Provincial Officer"** means any person designated in writing by the Minister as a provincial officer pursuant to Section 5 of the *OWRA* or Section 5 of the *Act* or Section 17 of *PA* or Section 4 of *NMA* or Section 8 of *SDW*.

**"Publication NPC-205"** means Ministry Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October, 1995, as amended.

**"Publication NPC-232"** means Ministry Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October, 1995, as amended.

**"Publication NPC-233"** means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended.

**"Qualified Person"** or **"Qp"** means a person who meets the qualifications to be a qualified person for conducting a Phase I ESA and a Phase II ESA and for completing certifications in a record of site condition, as set out in Section 5 of O. Regulation 153/04 made under the EPA;

**"Reg. 347"** means Ontario Regulation 347, R.R.O. 1990, as amended;

**"Reuse Site"** as defined in O. Regulation 406/19;

**"Rock"** as defined in O. Regulation 406/19;

**"RSC"** means the record of site condition;

**"SAR"** means sodium adsorption ratio;

**"SDWA"** means *Safe Drinking Water Act*, 2002, S.O. 2002, c.32, as amended;

**"Similar Soils"** within context of this Approval mean the incoming Dry Soil and/or the Processed Soil and/or Solidified Liquid Soil tested to show that their characteristics comply with the Excess Soil Criteria required for transfer from the Site to the same Reuse Site or the same waste disposal site or into the Bioremediation at the Site;

**"Site" or "Facility"** means the 5.72-hectare waste disposal site to undertake Soils processing described in this Approval, located on Part Lot 20 of Concession 1 in the Township of Thames Centre, County of Middlesex, and where the Equipment is located.

**"Slump Test"** means the Test Method for the Determination of Liquid Waste set out in Schedule 9 of Regulation 347;

**"Soil"** as defined in O. Regulation 406/19;

**"Soil Rules"** have the same meaning as in O. Regulation 406/19 and means the document entitled "*Part I: Rules for Soil Management*", published by the Ministry and as amended from time to time, available on a website of the Government of Ontario as Part I of the document entitled "Rules for Soil Management and Excess Soil Quality Standards";

**"Soil Standards"** means Soil Standards contained within the "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", April 15, 2011, as amended;

**"Standards Document"** means the Ministry document entitled "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", revised version April 15, 2011, as amended;

**"Substantial Completion"** has the same meaning as "substantial performance" in the Construction Lien Act;

**"Supporting Documents"** means the Ministry publications that accompany the Soil, Groundwater and Sediment Standards including "A Guide for Completing Phase II Environmental Site Assessment under Ontario Regulation 153/04" dated June 2011, as amended.

**"Table 2 Soil Standards"** means the full depth generic site condition standards for non-potable ground water site conditions for industrial/commercial/community property use listed in Table 2 of the Standards Document;

**"Target Compounds"** means the petroleum hydrocarbons, road salts and metals that the Process is designed to treat as part of the Remedial Work Plan.

**"TCLP"** means the Toxicity Characteristic Leaching Procedure, Method 1311 that appears in the United States Environmental Protection Agency Publication SW-846 entitled "*Test Methods for Evaluating Solid Wastes, Physical/Chemical Method*", as amended and as included in O.Reg. 347;



"**Tested Soil**" means the Dry Soil that has been tested in accordance with this Approval to demonstrate compliance with the appropriate Excess Soil Criteria defined in this Approval and including the following:

- a. if mixed and Bioremediated, the Bioremediated Dry Soil intended for mixing, bulking and blending with Similar Soils, that was tested by the Owner and destined for transfer for deposition at a Reuse Site or transfer to a disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction;
- b. if not mixed but Bioremediated, the Bioremediated Dry Soil that was tested by the Owner and destined for transfer for deposition at a Reuse Site or transfer to a waste disposal site or to any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction;
- c. if mixed and destined for transfer, the incoming Dry Soil characterized by the generator or by the Owner, intended for mixing, bulking and blending with Similar Soils, that was tested and destined for transfer for deposition at a Reuse Site or transfer to a waste disposal site or to any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction;
- d. if not mixed and destined for transfer, the incoming Dry Soil characterized by the generator or by the Owner, received at the Site and destined for transfer for deposition at a Reuse Site or transfer to a waste disposal site to any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction;

"**Trained Personnel**" means trained in accordance with the training requirements stipulated in this Approval, resulting in being knowledgeable through instruction and/or practice;

"**Transfer**" means the receipt, temporary storage at the Site, and subsequent transport of Waste off-Site, and may include screening.

"**Works**" means the sewage works described in the Company's application and this Approval.

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

## **TERMS AND CONDITIONS**

### **1.0 General**

#### **Compliance**

- 1.1 The Company shall ensure compliance with all the conditions of this Approval and shall ensure that any person authorized to carry out work on or operate any aspect of the Site or the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

1.2 Any person authorized to carry out work on or operate any aspect of the Site or the Works shall comply with the conditions of this Approval.

### **Build, etc. in Accordance**

- 1.3 (1) Except as otherwise provided by this Approval, the Site and the Works shall be designed, developed, built, operated and maintained in accordance with the application for this Approval, dated March 7, 2012, signed by Douglas LeBlanc, President, Ontario Soil Recycling Inc., the ESDM report, plans, specifications and the supporting documentation listed in the attached Schedule "A".
- (2) Construction and installation of the aspects of the Site described in the application for this Approval must be completed within 5 years of the later of:
- (a) the date this Approval is issued; or
  - (b) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.
- (3) This Approval ceases to apply in respect of the aspects of the Site noted above that have not been constructed or installed before the later of the dates identified in Condition 1.3(2) above.

### **Interpretation**

- 1.4 Where there is a conflict between a provision of any document, including the application referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.
- 1.5 Where there is a conflict between the application and a provision in any documents listed in Schedule "A", the application shall take precedence, unless it is clear that the purpose of the document was to amend the application and that the Ministry approved the amendment.
- 1.6 Where there is a conflict between any two documents listed in Schedule "A", other than the application, the document bearing the most recent date shall take precedence.
- 1.7 The requirements of this Approval are severable. If any requirement of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such requirement to other circumstances and the remainder of this Approval shall not be affected thereby.

### **Other Legal Obligations**

- 1.8 The issuance of, and compliance with the conditions of, this Approval does not:

- (a) relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; or
- (b) limit in any way the authority of the Ministry to require certain steps be taken or to require the Company to furnish any further information related to compliance with this Approval.

### **Adverse Effects**

- 1.9 The Site shall be constructed, operated and maintained in an environmentally safe manner which ensures the health and safety of all persons and minimizes adverse effects on the natural environment.
- 1.10 The Company shall take steps to minimize and ameliorate any adverse effect on the natural environment or impairment of water quality resulting from the Site, including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.
- 1.11 Despite an Owner or any other person fulfilling any obligations imposed by this Approval the person remains responsible for any contravention of any other condition of this Approval or any applicable statute, regulation, or other legal requirement resulting from any act or omission that caused the adverse effect to the natural environment or impairment of water quality.

### **Change of Owner**

- 1.12 The Owner shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any changes:
  - (i) the ownership of the Site;
  - (ii) the operator of the Site;
  - (iii) the address of the Owner;
  - (iv) the partners, where the Owner is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act*, R.S.O. 1990, c. B.17, as amended, shall be included in the notification;
  - (v) the name of the corporation where the Owner is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, c. C.39, as amended, shall be included in the notification; or
- 1.13 No portion of this Site shall be transferred or encumbered prior to or after closing of the Site unless the Director is notified in advance and sufficient financial assurance is deposited with the Ministry to ensure that these conditions will be carried out. In the event of any change in ownership of the Site, other than change to a successor municipality, the Owner shall notify the successor of and provide the successor with a copy of this Approval, and the Owner shall provide a copy of the notification to the District Manager and the Director.

## **Discharges to the Atmosphere**

1.14 The Company shall:

- (1) fully implement the Noise Control Measures specified in the Acoustic Assessment Report and detailed in Schedule “D” of this Approval, prior to commencement of operation of the Facility;
- (2) ensure, subsequent to the completion of the Noise Control Measures, that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-205 or Publication NPC-232, as applicable; and
- (3) ensure that the Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.

## **Fugitive Dust and Odour Control**

1.15 The Company shall prepare, in consultation with the District Manager, a Best Management Practices Plan for the control of fugitive dust and odour emissions from the Facility. This Best Management Practices Plan shall include, but not be limited to:

- (a) identification and ranking of the main sources of fugitive dust and odour emissions such as:
  - (1) on-site traffic,
  - (2) paved and unpaved roads/areas,
  - (3) material stockpiles including the biocells and biopiles under formation and the stockpiles of treated soils,
  - (4) loading/unloading areas and techniques,
  - (5) material spills,
  - (6) materials in conveyance system/equipment,
  - (7) general work area(s);
- (b) potential cause(s) for high dust and/or odour emissions from these sources;
- (c) preventative and control measures to minimize dust and/or odour emissions from the fugitive sources identified above. Details of the preventative and control measures shall include:
  - (1) a description of the control equipment to be installed,
  - (2) a description of the preventative procedures to be implemented, and/or
  - (3) the frequency of occurrence of periodic preventative activities, including material

application rates, as applicable;

- (d) an implementation schedule for the Best Management Practices Plan, including training of facility personnel;
- (e) inspection and maintenance procedures and monitoring initiatives to ensure effective implementation of the preventative and control measures.

### **Works -Changes in Processes or Process Materials**

1.16 The Company shall give written notice to the District Manager of any plans to change the processes or process materials in the Company's enterprise serviced by the Works where the change may not significantly alter the quantity or quality of the influent to the Works, while complying with the approved effluent quantity and quality from the Works, and no such change(s) shall be made unless with the written concurrence or approval of the District Manager.

### **Upon Substantial Completion of the Works**

- 1.17 (1) Upon the Substantial Completion of the Proposed Works , the Company shall prepare a statement, certified by a Professional Engineer, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry personnel.
- (2) Within one (1) year of the Substantial Completion of the Proposed Works, a set of as-built drawings showing the Works "as constructed" shall be prepared. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the Works for the operational life of the Works.
- (3) One week prior to the start up of the operation of the Proposed Works, the Company shall notify the District Manager (in writing) of the pending start up date.
- (4) The Company shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

## **2.0 Financial Assurance**

2.1 Prior to the receipt of any Waste, and commencement of operations at the Site, the Company shall submit to the Director, Financial Assurance, as defined in Section 131 of the Act, for the amount of **\$1,106,151.07(CAN)**. This Financial Assurance shall be in a form acceptable to the Director and shall provide sufficient funds for the analysis, transportation, Site clean-up, monitoring and disposal of all quantities of soil on the Site at any one time.

2.2 Commencing on March 31, 2014 and at intervals of three (3) thereafter, the Company shall

submit to the Director, a re-evaluation of the amount of Financial Assurance to implement the actions required under Condition 2.1. The re-evaluation shall include an assessment based on any new information relating to the environmental conditions of the Site and shall include the costs of additional monitoring and/or implementation of contingency plans required by the Director upon review of the closure plan and annual reports. The Financial Assurance must be submitted to the Director within ten (10) days of written acceptance of the re-evaluation by the Director.

- 2.3 The amount of Financial Assurance is subject to review at any time by the Director and may be amended at his/her discretion. If any Financial Assurance is scheduled to expire or notice is received, indicating Financial Assurance will not be renewed, and satisfactory methods have not been made to replace the Financial assurance at least sixty (60) days before the Financial Assurance terminates, the Financial Assurance shall forthwith be replaced by cash.

### **3.0 Certificate of Requirement**

- 3.1 Pursuant to Section 197 of the Act, no person having an interest in the Site shall deal in any way with the Site without first giving a copy of this Approval to each person acquiring an interest in the Site as a result of the dealing.

- 3.2 (a) The Company shall ensure within ninety (90) calendar days of the date of this Approval that two (2) copies of a completed Certificate of Requirement containing a registerable description of the property that the Site is on, in accordance with Form 4 of Regulation 688 under *Land Registration Reform Act*, R.R.O. 1990 c. L.4, as amended, has been submitted to the Director for the Director's signature;
- (b) If a Certificate of Requirement signed by the Director is received further to condition 3.2(a) above, within ten (10) calendar days of receiving the Certificate of Requirement signed by the Director, the Company shall register the Certificate of Requirement in the appropriate Land Registry Office on title to the Site and submit to the Director immediately following registration the duplicate registered copy.
- (c) If a Certificate of Requirement signed by the Director is received further to condition 3.2(a) above, within ten (10) calendar days of receiving the Certificate of Requirement signed by the Director, the Company shall submit a copy of the Certificate of Requirement to the District Manager. A photocopy is acceptable.

### **4.0 Inspections by the Ministry**

- 4.1 No person shall hinder or obstruct a Provincial Officer from carrying out any and all inspections authorized by the *OWRA*, the *Act*, the *PA*, the *SDWA* or the *NMA* of any place to which this Approval relates, and without limiting the foregoing:

- (a) to enter upon the premises where the approved processing is undertaken, or the location where the records required by the conditions of this Approval are kept;

- (b) to have access to, inspect, and copy any records required to be kept by the conditions of this Approval;
- (c) to inspect the Site, related equipment and appurtenances;
- (d) to inspect the practices, procedures, or operations required by the conditions of this Approval; and
- (e) to sample and monitor for the purposes of assessing compliance with the terms and conditions of this Approval or the *Act*, the *OWRA*, the *PA*, the *SDWA* or the *NMA*.

## **5.0 Information and Record Retention**

- 5.1 Any information requested by the Ministry, concerning the operation of the Site and its operation under this Approval, including but not limited to any records required to be kept by this Approval shall be provided to the Ministry, upon request. Records shall be retained for ten (10) years except as otherwise authorized in writing by the Director.
- 5.2 The receipt of any information by the Ministry or the failure of the Ministry to prosecute any person or to require any person to take any action, under this Approval or under any statute, regulation or other legal requirement, in relation to the information, shall not be construed as:
- (a) an approval, waiver, or justification by the Ministry of any act or omission of any person that contravenes any term or condition of this Approval or any statute, regulation or other legal requirement; or
  - (b) acceptance by the Ministry of the information's completeness or accuracy.

## **6.0 Waste Types and Service Area**

- 6.1 The Site may receive soil originating in the Province of Ontario, limited to the soils with the following characteristics:
- (a) soils impacted with petroleum hydrocarbons, VOCs, SVOC, metals or salt;
  - (b) soils with no free-phase liquid (non-aqueous phase liquid), other than water, present in the soils; and
  - (c) for soils to be bioremediated, only soils that:
    - a. contain biodegradable contaminants of concern in concentrations that can be bioremediated in accordance with the bioremediation process parameters approved in this Approval; and
    - b. do not contain non-biodegradable contaminants of concern, including SAR, at concentrations exceeding the applicable quality criteria for re-use at the receiving site or the reuse site.

6.2 The Company shall ensure that soils that is classified as a hazardous waste, as defined in O.Reg. 347, is not received at the Site.

## **7.0 Operation**

### **Hours of Operation**

- 7.1 (a) (i) Receipt of In-coming Soil at the Site may be undertaken Monday through Friday, 7:00 am to 7:00 pm, and Saturday, 7:00 am to 3:00 pm.
- (ii) Processing of Incoming Soil, and the operation of Equipment, may be undertaken Monday through Friday, 7:00 am to 5:00 pm, and Saturday, 7:00 am to 3:00 pm.
- (b) For any temporary alteration for hours in Condition 7.1 (a) to receive Incoming Soil at the Site, for emergency purposes only, the Company shall notify the District Manager 24 hours in advance and receive his/her prior written approval.

### **Operating Procedures and Maintenance Manual**

- 7.2 The Company shall prepare, retain on-site and implement an operating procedures and maintenance Manual for the Process. The Manual shall specify, as a minimum:
- (a) frequency of inspections and scheduled preventative maintenance;
  - (b) procedures to record the amount of Biostimulation Compound(s) used each time material is used by the Process;
  - (c) procedures to prevent upset conditions;
  - (d) procedures to prevent /minimize odour emissions;

### **Daily Waste Limits**

- 7.3 (a) The amount of waste received at the Site shall not exceed the maximum annualized average of 2,400 tonnes per day.
- (b) The maximum daily amount of soils that the Site may receive on any day is limited to 5,000 tonnes.
- (c) The Company shall restrict trucks entering and exiting the Site to a maximum of fifty (50) trucks per hour.

### **Storage Capacity and Duration**



- 7.4 (a) The maximum amount of Incoming Soils and processed soil destined for landfills for final disposal allowed at the Site at any time is limited to 40,000 tonnes.
- (b) The maximum amount of the Processed Soil stored at the Site that can be stored on-site that will be destined for one of the locations outlined in Condition 11.2 (b), (c) and (d) shall not exceed 27,000 tonnes.
- 7.5 The maximum height for all biopiles and Processed Soil storage piles is 12 metres.
- 7.6 The maximum height for process biocells on Site is 3 metres.
- 7.7 The biocells shall be constructed with 2:1 (H:V) slopes, and shall be located as shown on the Site Plan Soil Diversion and Recovery Facility, dated December 1, 2011, included in item 1 of Schedule A.
- 7.8 (a) The Company shall only accept the soils that was transported to the Site by haulers approved by the Ministry.
- (b) The Company shall ensure that all residual Wastes generated at the Site are managed and disposed of in accordance with the Act and O. Reg. 347.
- 7.9 (a) The Company shall undertake bioremediation process monitoring in accordance with the Design and Operations report, section 12 of Item #1 of Schedule "A".
- (b) Bioaugmentation is not permitted by this Approval.
- 7.10 The Company shall maintain a current copy of the Design and Operations Report at the Site to be made available to any Provincial Officer upon request.
- 7.11 No inoculants or other additives can be added to the soils other than the Biostimulation Compound authorized in this Approval.
- 7.12 (a) The Company shall ensure that no soil handling activities, including screening, biopile formation activities or transfer of Processed Soil to the Processed Soil storage location are undertaken during high wind events.
- (b) All Processed Soil storage stockpiles shall be managed in a manner that minimizes dust emissions, until the Processed Soil is ready to be moved off Site to its final destination.
- (c) The Company shall ensure that the Processed Soil piles for are segregated to avoid mixing of soils of different quality to ensure that will be outbound soil being sent to sites as listed in Condition 11.2 are clearly identified.
- 7.13 The Company shall ensure that the biocells are covered at all times, whenever soil handling or

pile construction activities are not taking place.

- 7.14 The Company shall ensure that all biocell, biopile and soil storage piles are located on a liner or asphalt surface.

### **Works - By-Passes**

- 7.15 (1) Any By-pass of sewage from any portion of the Works is prohibited, except where:
- (a) It is necessary to avoid loss of life, personal injury, danger to public health or severe property damage; and
  - (b) The District Manager agrees that it is necessary for the purpose of carrying out essential maintenance and the District Manager has given prior written acknowledgment of the by-pass;
- (2) The Company shall collect at least one (1) grab sample of the By-pass and have it analyzed for the parameters outlined in Condition 7.17 using the protocols in Condition 21.5.
- (3) The Company shall maintain a logbook of all By-pass events which shall include, at a minimum, the time, location, duration, quantity of By-pass, the authority for By-pass pursuant to subsection (1), and the reasons for the occurrence.

### **Works - Operation and Maintenance**

- 7.16 (1) Before the commencement of operation of the Works, the Company shall prepare a "Stormwater Contingency and Remedial Action Plan" for the Works and submit a copy to the District Manager for approval;
- (2) Prior to any planned discharge from the Works to the receiving surface water, the Company shall compare monitoring results obtained under Condition 21.5(1) with the effluent limits set in Table 1 under Condition 7.17 (1). The Company shall allow discharge from the Works **ONLY** if all parameter listed in Table 1 meet their respective effluent limit.
- (3) The Company shall implement the "Stormwater Contingency and Remedial Action Plan" for the Works approved under Condition 7.16 (1) to dispose off wastewater that fails to meet effluent limits set in Table 1 under Condition 7.17 (1).
- (4) The Company shall operate the Works such that the maximum storage elevation of the stormwater management pond (Works) is always maintained below 281.40 m masl providing adequate extended storage capacity of 2,758 m<sup>3</sup> to handle runoff from storm events with 1:100 year return frequency. For this purpose, the Company shall install a level gauge monitor to initiate drawdown of the stormwater management pond (Works) in order to maintain the level below 281.40 m masl.

- (5) The Company may discharge the contents of the stormwater pond to the municipal storm sewer (Harris Drive) which drains to Rath-Harris Municipal Drain up to sixteen (16) times a year at a maximum flow rate of 40 L/sec and ensuring that the duration of discharge does not exceed four (4) days.
- (6) The Company shall ensure that at all times, the Works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained. The Company shall also ensure that all monitoring programs and maintenance schedules for the Works and related equipment are complied with.
- (7) The Company shall undertake an inspection of the condition of the stormwater containment pond, at least twice a year, and undertake any necessary cleaning and maintenance to prevent the excessive build-up of sediment or debris and/or decaying vegetation.
- (8) The Company shall conduct inspections of all specific sediment and erosion control measures and check point locations outlined in the application for approval, once every two weeks during construction and once every year post-construction, and after each significant storm event.
- (9) The Company shall prepare and submit to the District Manager, an operations manual that shall include, but not necessarily limited to, the following information:
  - (a) operating procedures for routine operation of the Works;
  - (b) inspection programs, including methods or tests employed to detect when maintenance is necessary;
  - (c) repair and maintenance programs for the Works;
  - (d) contingency plans and procedures for dealing with potential spill, bypasses, and any other abnormal situations and for notifying the District Manager; and,
  - (e) complaint procedures for receiving and responding to public complaints.
- (10) The Company shall maintain the operations manual current and retain a copy at the location of the Works. Upon request, the Company shall make the manual available for inspection by Ministry personnel.
- (11) The Company shall maintain a log book which shall be made available for review by the Ministry upon request. The log shall include the date of inspection, cleaning and maintenance measures for the Works, and the remedial measures undertaken to maintain the sediment and erosion control measures, if any.
- (12) The Company shall ensure that testing of any sediments in the pond is done annually, and

prior to clean-out, and that any sediments are disposed of in accordance with the Act, and O.Reg. 347.

### **Works - Effluent Limits**

- 7.17 (1) The Company shall design, construct and operate the Works such that the concentrations of the parameters named in Schedule B as effluent parameters are not exceeded in the effluent from the Works
- (2) For the purposes of determining compliance with and enforcing subsection (1):
- (a) non-compliance with respect to a Concentration Limit is deemed to have occurred when any single composite sample collected under Condition 21.5(3) analyzed for a parameter named in Column 1 of Table 1 is greater than the corresponding maximum concentration set out in Column 2 of Table 1;
  - (b) non-compliance with respect to pH is deemed to have occurred when any single measurement of the composite sample collected under Condition 21.5(3) is outside of the indicated range.
- (3) The Company shall report to the District Manager or designate, any exceedence of any parameter specified in Condition 7.17 orally **during any discharge event**, as soon as reasonably possible, and in writing within seven (7) days of the exceedence.

### **Site Security**

- 7.18 The Site must be maintained in a secure manner, such that unauthorized persons cannot enter the Site.

### **Signage**

- 7.19 The Company shall ensure that a sign readable twenty four (24) hours per day is posted at the entrance to the Site stating the following information:
- (a) name of the Company;
  - (b) this Approval number;
  - (c) normal hours of operation;
  - (d) the Company's telephone number to which complaints may be directed;
  - (e) twenty-four hour emergency telephone number (if different from above);
  - (f) a warning against unauthorized access; and
  - (g) a warning against dumping at the Site.

## **Soil Inspections**

- 7.20 All sampling / analytical documentation for the loads of soils entering the Site shall be reviewed by Trained Personnel to ensure that the soils is of a type approved for acceptance under this Approval.
- 7.21 (a) In the event that a load of soils is refused, a record shall be made in the daily log book of the reason why the soils was refused and the origin of the Soil, if known.
- (b) Unacceptable waste loads shall be forthwith removed from the Site in accordance with Regulation 347 and the EPA.
- (c) District Manager shall be notified in writing of the receipt of unacceptable loads within three (3) business days.
- (d) The following information shall be included in the notification to the District Manager:
- (i) type of waste, including the characteristics of the contamination and a copy of the analytical results, if available;
  - (ii) source of the Incoming Soil;
  - (iii) final destination of the rejected Incoming Soil, if known; and
  - (iv) time and date of receipt and time and date of removal from the Site.

## **8.0 Incoming Soil**

- 8.1 Prior to accepting any Dry Soil at the Site, the Owner shall acquire from the Source Site owner/generator, the documentation that contains information on the Source Site and the characterization information of the incoming Dry Soil, unless the Dry Soil is received in accordance with the following sub-conditions:

### **Dry Soil with Incomplete Documentation or without Documentation**

- a. provided that the Dry Soil is a solid non-hazardous waste, any Dry Soil received at the Site with incomplete Dry Soil characterization documentation or without the required Dry Soil characterization documentation, shall remain segregated from all other Dry Soils, wastes and materials and be covered, until complete documentation promptly provided by the Source Site owner/generator, received by the Owner and deemed acceptable by Trained Personnel or the Dry Soil is characterized at the Site in accordance with this Approval;

### **Dry Soil from Spills**

- b. provided that the Dry Soil is generated from emergency spill response activities, any Dry Soil received at the Site shall remain segregated from all other Dry Soils, wastes and materials and be

covered, until the Dry Soil is characterized at the Site in accordance with this Approval.

### **Dry Soil - Small Amounts for Bioremediation**

- c. For Dry Soil from small-scale residential Source Site projects and destined for the Bioremediation at the Site, Dry Soil may be received at the Site without accompanying characterization results subject to the following:
  - i. the amount of Dry Soil received from any one Source Site shall not exceed 80 cubic metres or 150 tonnes;
  - ii. the total amount of Dry Soil stockpiled further to this sub-condition shall not exceed 800 cubic metres or 1,440 tonnes;
  - iii. all Dry Soils shall be inspected visually and olfactorily prior to receipt to ensure the Dry Soil quality matches the Dry Soil description provided and the requirements of this Approval;
  - iv. the Dry Soils may be stockpiled separately or in the same pile prior to sampling and testing; and
  - v. the Dry Soil stockpiles may be mixed prior to testing for the purposes of homogenization, provided that an Air Approval required under Section 9 of the EPA for the equipment used is obtained prior to mixing and this activity is approved in the Air Approval.
  
- d. For Dry Soil from small-scale excavation IC&I Source Site projects and destined for the Bioremediation at the Site, Dry Soil may be received at the Site without accompanying test results subject to the following:
  - i. the amount of Dry Soil received from any one Source Site shall not exceed 10 tonnes or 18 cubic metres and this amount shall not be exceeded in any one (1) year from the last excavation at the Source Site;
  - ii. the Dry Soil shall be inspected visually and olfactorily prior to receipt to ensure the Dry Soil quality matches the Dry Soil description provided and the requirements of this Approval;
  - iii. Dry Soils shall be stockpiled separately prior to testing; and
  - iv. if the Contaminants of Concern involve only fuels (diesel, gasoline, oil), or mineral oils, or SAR, then a minimum of one (1) sample may be taken for testing.

8.2 The documentation from Condition 8.1 shall be reviewed and deemed acceptable by Trained Personnel.

### **Excess Soil General Documentation**

8.3 Regardless whether the Excess Soil is characterized by the Source Site owner/generator or the Owner, the documentation required in Condition 8.1 shall include the following Source Site information:

- a. the generator's name and/or company name, address and contact information;

- b. the Source Site location;
- c. current Source Site's activities and land use;
- d. past Source Site's activities and land use, if known; and
- e. estimated quantity of the Excess Soil to be received at the Site.

#### **For Each Source Site**

8.4 The documentation required in Condition 8.1 shall be for the Excess Soil from each Source Site.

#### **Characterization Documentation**

8.5 All applicable analytical results shall be from a laboratory service provider accredited by a Canadian Association for Laboratory Accreditation or equivalent.

#### **Incoming Dry Soil - Transfer to a Reuse Site**

8.6 The documentation required in Condition 8.1 for the incoming Dry Soil for transfer and destined for a Reuse Site, shall include sampling and testing protocols and characterization results done in accordance with the requirements in O. Regulation 406/19 and the Soil Rules.

#### **Incoming Dry Soil - Transfer to a Waste Disposal Site**

8.7 The documentation required in Condition 8.1 for the incoming Dry Soil destined for transfer to an approved non-hazardous waste disposal site as set out in Condition 10.3, shall also include sampling and testing protocols, methods and analytical results to demonstrate that the Dry Soil is a solid non-hazardous waste. As a minimum, the characterization documentation shall include the following information:

- a. results of any Phase I ESA and Phase II ESA undertaken for the Source Site in accordance with the Ministry's requirements under O. Regulation 153/04; or
- b. the following characterization results:
  - i. slump from the Slump Test, if the Excess Soil has a high moisture content;
  - ii. characterization to demonstrate that the Dry Soil is a non-hazardous waste which was done in accordance with the following:
    - A. sampling and testing results to demonstrate that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347, including TCLP analysis results, from samples,
      - 1. collected in accordance with the procedures set out in the Ministry's document entitled "*Principles of Sampling and Analysis of Waste for TCLP under Reg. 347*"

", as amended; and

2. tested for Contaminants of Concern determined from the information contained in the general documentation required in Condition 4.2(3) and analyzed with methods in accordance with the Ministry-published methods and as recommended by the accredited laboratory service provider; and
- B. sampling and testing results to demonstrate that the Dry Soil is suitable for acceptance at the receiving waste disposal site, as required by the waste disposal site Environmental Compliance Approval **or** sampling and testing results to demonstrate that the Dry Soil is suitable for acceptance at the receiving waste disposal site, as instructed by the owner of the waste disposal site.

### **Incoming Dry Soil - Bioremediation**

8.8 The required incoming Dry Soil characterization documentation required in Condition 8.1 for Dry Soil destined for Bioremediation at the Site, shall include characterization information, sampling and testing protocols/methods done in accordance with the following:

- a. results of any Phase I ESA and Phase II ESA undertaken for the Source Site in accordance with the Ministry's requirements under O. Regulation 153/04; **or**
- b. the following characterization results:
  - i. slump from the Slump Test, if the Excess Soil has a high moisture content;
  - ii. any applicable analytical results demonstrating that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347, including TCLP analysis results;
  - iii. bulk concentrations of the following:
    - A. petroleum hydrocarbon fractions: F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34);
    - B. heavy metals;
    - C. Benzene, Toluene, Ethyl Benzene and Xylene; and
  - iv. bulk concentrations of the other applicable potential Contaminants of Concern listed in Section B of Part I of the Soil Rules, including any other VOCs and SVOCs or inorganics determined from the information contained in the general documentation required in Condition 4.2(3);



c. the following sampling and testing information:

i. sampling protocols, including the number of samples taken and their locations collected in accordance with one of the following:

A. for an in-situ and ex-situ characterization of the Dry Soil from residential Source Sites:

1. a minimum of one (1) sample shall be collected for each 500 m<sup>3</sup> of the Dry Soil to be excavated/excavated for testing of VOCs and SVOCs, excluding petroleum hydrocarbon fractions F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34); and
2. a minimum of one (1) sample shall be collected for each 300 m<sup>3</sup> of the Dry Soil to be excavated/excavated for testing for petroleum hydrocarbon fractions F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34) and for all other testing,

B. for an in-situ characterization of the Dry Soil from IC&I Source Sites:

1. a minimum of three (3) samples shall be collected if less than 600 m<sup>3</sup> of the Dry Soil is to be excavated;
2. a minimum of one (1) sample shall be collected for each 200 m<sup>3</sup> of the Soil for the first 10,000 m<sup>3</sup> of the Dry Soil to be excavated;
3. a minimum of one (1) sample shall be collected for each additional 450 m<sup>3</sup> of the Dry Soil after the first 10,000 m<sup>3</sup> of the Dry Soil to be excavated; and
4. at least one (1) sample shall be collected for each additional 2,000 cubic metres after the first 40,000 cubic metres of the Dry Soil to be excavated;

C. when carrying out an ex-situ characterization of the Dry Soil from IC&I Source Sites, the sampling frequency requirements are as follows:

1. for stockpile volume of less than 220 m<sup>3</sup>, a minimum of 2 samples shall be collected;
2. for stockpile volume between 221 m<sup>3</sup> and 430 m<sup>3</sup>, a minimum of 3 samples shall be collected;
3. for stockpile volume between 431 m<sup>3</sup> and 670 m<sup>3</sup>, a minimum of 4 samples shall be collected;
4. for stockpile volume between 671 m<sup>3</sup> and 950 m<sup>3</sup>, a minimum of 5 samples shall be collected;
5. for stockpile volume between 951 m<sup>3</sup> and 1,250 m<sup>3</sup>, a minimum of 6 samples shall be collected;
6. for stockpile volume between 1,251 m<sup>3</sup> and 1,550 m<sup>3</sup>, a minimum of 7 samples shall be collected;
7. for stockpile volume between 1,551 m<sup>3</sup> and 1,850 m<sup>3</sup>, a minimum of 8 samples

- shall be collected;
8. for stockpile volume between 1,851 m<sup>3</sup> and 2,200 m<sup>3</sup>, a minimum of 9 samples shall be collected;
  9. for stockpile volume between 2,201 m<sup>3</sup> and 2,500 m<sup>3</sup>, a minimum of 10 samples shall be collected;
  10. for stockpile volume between 2,501 m<sup>3</sup> and 2,900 m<sup>3</sup>, a minimum of 11 samples shall be collected;
  11. for stockpile volume between 2,901 m<sup>3</sup> and 3,300 m<sup>3</sup>, a minimum of 12 samples shall be collected;
  12. for stockpile volume between 3,301 m<sup>3</sup> and 3,700 m<sup>3</sup>, a minimum of 13 samples shall be collected;
  13. for stockpile volume between 3,701 m<sup>3</sup> and 4,100 m<sup>3</sup>, a minimum of 14 samples shall be collected;
  14. for stockpile volume between 4,101 m<sup>3</sup> and 4,500 m<sup>3</sup>, a minimum of 15 samples shall be collected;
  15. for stockpile volume between 4,501 m<sup>3</sup> and 5,000 m<sup>3</sup>, a minimum of 16 samples shall be collected; and
  16. for stockpile volume of greater than 5,000 m<sup>3</sup>, a minimum number of samples to be collected shall be calculated in accordance with the following formula:  $N = [32 + (\text{volume} - 5000 / 300)]/2$  where "volume" is the actual stockpile volume;
- ii. sampling methods used and procedures for handling of the samples in accordance with the requirements set out in the Section B of Part I of the Soil Rules **or** in accordance with the instructions of the accredited laboratory service provider carrying out the analytical testing;
  - iii. sampling of the Dry Soil for determination of the leachate concentrations of Contaminants of Concern listed in Schedule 4 of Regulation 347, in accordance with the Ministry's document entitled "*Principles of Sampling and Analysis of Waste for TCLP under Reg. 347*", as amended;
  - iv. analytical methods for determining bulk concentrations of contaminants in the Dry Soil in accordance with the Ministry's document entitled "*Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*" dated March 9, 2004, amended July 1, 2011, and as further amended at any time **or** in accordance with Section B of Part I of the Soil Rules; and
  - v. leachate characterization in accordance with the TCLP.

8.9 The Company shall ensure that all inbound soils is:

- (i) inspected by Trained Personnel to ensure that the Site is approved to accept that type of soil;
- (ii) characterized prior to receipt at the Site, and that analytical results accompany all soil

received at the Site;

- 8.10 The Company shall ensure that Trained Personnel review the Waste profile sheet or other environmental investigation reports, if required, available from the source property from which Soils has been transferred; for the purpose of confirming identified contaminants of concern, and that appropriate analysis has been done.
- 8.11 The Company may not mix or dilute unprocessed soils with any other soils or materials prior to sampling.
- 8.12 The Company shall ensure that only soils that is authorized in this Approval is received at the Site.
- 8.13 The Company shall ensure that Incoming Soil that is received at the Site for Transfer is:
- (i) is sampled within one week of arrival at the Site;
  - (ii) stored in a segregated area, and is tarped or covered;
  - (iii) removed from the Site within three (3) months of date of arrival at the Site.

## **9.0 General Requirements for Characterization**

- 9.1 (1) Unless the incoming Dry Soil has been already adequately characterized at the Source Site or at the spill site as required by this Approval, the Owner shall upon receipt at the Site characterize the Dry Soil at the Site to determine its nature, constituents and characteristics and carry out sampling of the incoming Dry Soil within twenty four (24) hours from its receipt, or on the next business day, whichever comes first.
- (2) For the Processed Soil, sampling shall be carried out within twenty four (24) hours from completion of processing or Solidification or on the next business day, whichever comes first.
- (3) Discrete Samples shall be taken when analysing for:
- a. metals, including barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, silver, thallium, uranium, vanadium, zinc, antimony, arsenic and selenium;
  - b. petroleum hydrocarbon fractions F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34) and F4 (>C34);
  - c. VOCs including Benzene, Toluene, Ethyl Benzene and Xylene;
  - d. SVOCs, which include the SVOCs with the Henry's Law constant greater than  $1 \times 10^{-5}$  atmosphere  $\text{m}^3/\text{mol}$  and/or vapour pressure greater than 0.05 mm Hg and which, for example, are Acenaphthene, Acenaphthylene, Anthracene, Benz(a)anthracene, Cresol (m&p-), Cresol(o-), Fluoranthene, Fluorene, Methlynaphthalene (2-(1-)), Naphthalene, and Phenanthrenre; and
  - e. polycyclic aromatic hydrocarbons / acid/base/neutral compounds (PAHs/ABNs).
- (4) Composite Samples shall be taken when analysing for SVOCs with the Henry's Law constant less than  $1 \times 10^{-5}$  atmosphere  $\text{m}^3/\text{mol}$  and/or vapour pressure less than 0.05 mm Hg.

- (5) For sampling of the Dry Soil or Processed Soil, the Owner shall,
- a. use sampling procedures, including methods, equipment and techniques, for collection of representative samples and for handling of the samples as set out in the Section B of Part I of the Soil Rules or as recommended by the accredited laboratory service provider carrying out the analytical testing.

### **Analytical methods**

- (6) For testing of the Dry Soil, the Liquid Soil or the Processed Soil or the Solidified Liquid Soil or the solidified Waste Slurries and Sludges, the Owner shall,
- a. for determining bulk concentrations of contaminants, use the analytical methods as set out in the Ministry's document entitled "*Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act* " dated March 9, 2004, amended July 1, 2011, and as further amended at any time **or** in Section B of Part I of the Soil Rules;
  - b. for determination of the leachate concentrations of Contaminants of Concern listed in Schedule 4 of Regulation 347, sample the Dry Soil or the Liquid Soil in accordance with the Ministry's document entitled "*Principles of Sampling and Analysis of Waste for TCLP under Reg. 347* ", as amended;
  - c. for determination if Waste is a solid or a liquid, use the Slump Test;
  - d. to demonstrate that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347, including TCLP analysis, use the Ministry-published methods and if unavailable, use methods recommended by the accredited laboratory service provider; and
  - e. submit samples to an accredited laboratory service provider no later as instructed, for the required analysis.

### **Testing of Waste to be Transferred to Waste Disposal Site**

- 9.2 For solid Waste destined for transfer to an approved non-hazardous waste disposal site, the required Waste characterization sampling and testing protocols/methods shall be in accordance with the following:
- a. if the Waste has a high moisture content, determine the slump; and
  - b. sample and test the Waste in accordance with one of the following:

- A. sampling and testing results to demonstrate that the Waste does not trigger any criteria from the hazardous waste definition from Regulation 347, including TCLP analysis results, from samples,
  - 1. collected in accordance with the procedures set out in the Ministry's document entitled "*Principles of Sampling and Analysis of Waste for TCLP under Reg. 347*", as amended; and
  - 2. tested for Contaminants of Concern determined from the information contained in the general documentation required in Conditions 8.1 and 8.3 above and analyzed with methods in accordance with the Ministry-published methods and as recommended by the accredited laboratory service provider; and
  
- B. sampling and testing results to demonstrate that the Waste is suitable for acceptance at the receiving waste disposal site, as required by the waste disposal site Environmental Compliance Approval or sampling and testing results to demonstrate that the Waste is suitable for acceptance at the receiving waste disposal site, as instructed by the owner of the waste disposal site.

**Testing of Incoming Dry Soil for Bioremediation**

- 9.3 (1) For Dry Soil destined for the Bioremediation at the Site, the required on-Site characterization sampling and testing protocols/methods shall be in accordance with the following:
- a. for characterization of the Dry Soil from residential Source Sites received at the Site, sampling and testing requirements, including the number of samples taken and their locations shall be as follows:
    - i. a minimum of one (1) sample shall be collected for each 500 m<sup>3</sup> of the Dry Soil to be excavated/excavated for testing of VOCs and SVOCs, excluding petroleum hydrocarbon fractions F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34); and
    - ii. a minimum of one (1) sample shall be collected for each 300 m<sup>3</sup> of the Dry Soil to be excavated/excavated for testing for petroleum hydrocarbon fractions F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34) and for all other testing;
  
  - b. for characterization of the Dry Soil from IC&I Source Sites received at the Site, sampling and testing requirements, including the number of samples taken and their locations shall be as follows:
    - A. for stockpile volume of less than 220 m<sup>3</sup>, a minimum of 2 samples shall be collected;
    - B. for stockpile volume between 221 m<sup>3</sup> and 430 m<sup>3</sup>, a minimum of 3 samples shall be collected;
    - C. for stockpile volume between 431 m<sup>3</sup> and 670 m<sup>3</sup>, a minimum of 4 samples shall be collected;

- D. for stockpile volume between 671 m<sup>3</sup> and 950 m<sup>3</sup>, a minimum of 5 samples shall be collected;
  - E. for stockpile volume between 951 m<sup>3</sup> and 1,250 m<sup>3</sup>, a minimum of 6 samples shall be collected;
  - F. for stockpile volume between 1,251 m<sup>3</sup> and 1,550 m<sup>3</sup>, a minimum of 7 samples shall be collected;
  - G. for stockpile volume between 1,551 m<sup>3</sup> and 1,850 m<sup>3</sup>, a minimum of 8 samples shall be collected;
  - H. for stockpile volume between 1,851 m<sup>3</sup> and 2,200 m<sup>3</sup>, a minimum of 9 samples shall be collected;
  - I. for stockpile volume between 2,201 m<sup>3</sup> and 2,500 m<sup>3</sup>, a minimum of 10 samples shall be collected;
  - J. for stockpile volume between 2,501 m<sup>3</sup> and 2,900 m<sup>3</sup>, a minimum of 11 samples shall be collected;
  - K. for stockpile volume between 2,901 m<sup>3</sup> and 3,300 m<sup>3</sup>, a minimum of 12 samples shall be collected;
  - L. for stockpile volume between 3,301 m<sup>3</sup> and 3,700 m<sup>3</sup>, a minimum of 13 samples shall be collected;
  - M. for stockpile volume between 3,701 m<sup>3</sup> and 4,100 m<sup>3</sup>, a minimum of 14 samples shall be collected;
  - N. for stockpile volume between 4,101 m<sup>3</sup> and 4,500 m<sup>3</sup>, a minimum of 15 samples shall be collected;
  - O. for stockpile volume between 4,501 m<sup>3</sup> and 5,000 m<sup>3</sup>, a minimum of 16 samples shall be collected;
  - P. for stockpile volume of greater than 5,000 m<sup>3</sup>, a minimum number of samples to be collected shall be calculated in accordance with the following formula:  $N = [32 + (\text{volume} - 5000 / 300)]/2$  where "volume" is the actual stockpile volume;
- c. sampling methods used and procedures for handling of the samples shall be in accordance with the requirements set out in the Section B of Part I of the Soil Rules or in accordance with the instructions of the accredited laboratory service provider carrying out the analytical testing;
  - d. sampling of the Dry Soil for determination of the leachate concentrations of Contaminants of Concern listed in Schedule 4 of Regulation 347, shall be in accordance with the Ministry's document entitled "*Principles of Sampling and Analysis of Waste for TCLP under Reg. 347*", as amended;
  - e. if the Excess Soil has a high moisture content, slump shall be determined to confirm the Excess Soil is a solid;
  - f. applicable criteria from the hazardous waste definition from Regulation 347, including leachate concentrations for the Contaminants of Concern listed in Schedule 4 of Regulation 347, shall be determined from the information contained in the general documentation required in Conditions

8.1 and 8.3 above and tested for;

g. bulk concentrations of the following:

- i. petroleum hydrocarbon fractions: F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34);
- ii. heavy metals;
- iii. Benzene, Toluene, Ethyl Benzene and Xylene; and
- iv. other applicable potential Contaminants of Concern listed in Section B of Part I of the Soil Rules, including any other VOCs and SVOCs or inorganics, determined from the information contained in the general documentation required in Condition 8.1; and

h. analytical methods listed in Condition 9.1 above shall be used.

## **10.0 TESTED SOIL QUALITY CRITERIA, SOIL DISPOSAL and RE-USE REQUIREMENTS**

### **10.1 Tested Soil Quality Criteria**

- (1) The Tested Soil shall meet the applicable Excess Soil Criteria for the Reuse Site.
- (2) The Tested Soil destined for a waste disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction, shall not exceed the criteria set out in the Environmental Compliance Approval issued by the Ministry for the waste disposal site or the other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction.

### **10.2 Dry Soil as Excess Soil Destined for a Reuse Site**

- (1) The Tested Soil may leave the Site as Excess Soil to a Reuse Site only if tested in accordance with the requirements set out in O. Regulation 406/19 and the Soil Rules to show compliance with the Excess Soil Criteria.

### **10.3 Dry Soil Destined for a Waste Disposal Site or a Site in Another Jurisdiction**

- (1) The Tested Soil may be transferred to a waste disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction subject to compliance with the applicable quality criteria and restrictions in O. Regulation 406/19.

### **10.4 Disposal of Non-Reusable Soil-like Waste**

- (1) Except for the Processed Soil intended for deposition at a Reuse Site, the Owner shall ensure that,
  - a. all Rock that does not meet the definition of an Inert Fill;

- b. all Excess Soil that contains more Rock than allowed in Excess Soil and which does not meet the definition of an Inert Fill;
- c. all Excess Soil that contains more than an insignificant amount of incidental construction and/or demolition waste or other non-hazardous waste debris; and
- d. all Excess Soil that contains foundry sands, slag, emission control dusts or treatment residues;

are only transferred to:

- i. a waste disposal site approved to accept that type of waste to be further processed, used or disposed of in accordance with the Environmental Compliance Approval for that site; or
- ii. a location not required to obtain an Environmental Compliance Approval but having an appropriate jurisdictional approval or a license, if required.

### **10.5 Other Wastes – Transfer or Disposal**

- (1) The Owner shall ensure that other Wastes received and managed at the Site or wastes generated at the Site are transferred to an approved waste disposal site in accordance with the requirements in the EPA and Regulation 347 or to a location with the appropriate jurisdictional approval or a license, if required or a site exempted from the Environmental Compliance Approval in accordance with Regulation 347.

### **11.0 (revoked)**

### **12.0 Chemical Storage and Spill Protection**

- 12.1 The Company shall ensure that all liquid reactants at the Site are stored in a manner that reduces the possibility of an adverse effect or a hazard to the health and safety of the environment or people resulting from such storage.

### **13.0 Complaints Procedure**

- 13.1 If at any time, the Company receives complaints regarding the operation of the Site, the Company shall respond to these complaints according to the following procedure:
  - (a) record and number each complaint, either electronically or in a separate log book, and shall include the following information:
    - (i) the nature of the complaint;
    - (ii) if complaint is odour or nuisance related, the weather conditions and wind direction at the time of the complaint;
    - (iii) the name, address and the telephone number of the complainant (if provided);



- (iv) the time and date of the complaint;
- (b) The Company, upon notification of the complaint shall initiate appropriate steps to determine all possible causes of the complaint. If the operation of this Site is determined to be the likely cause of the complaint, the company shall proceed to take the necessary actions to eliminate the cause of the complaint and shall immediately notify the District Manager (or Spills Action Centre if after office hours) and forward a formal reply to the complainant.
- (c) The Company shall complete and retain on-Site a report written within seven (7) days of the complaint date and submit this report to the District Manager within seven (7) days of the complaint date, identifying the sources of the complaint, listing the actions taken to resolve the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

#### **14.0 Spill Contingency and Emergency Response**

- 14.1 The Company shall take immediate measures to clean-up all spills, related discharges, By-Pass, and process upsets of Wastes which result from the operation of the Site. All spills and upsets shall be immediately reported to the Ministry's Spills Action Centre at (416) 325-3000 or 1-800-268-6060 and shall be recorded in a written log or an electronic file format, referred to in Condition 17.2 of this Approval, as to the nature of the spill or upset, and the action taken for clean-up, correction and prevention of future occurrences.
- 14.2
  - (a) An up-to-date version of the Emergency Response Plan shall be kept at the Site at all times, in a central location available to all staff, and a copy shall be submitted to the District Manager, the local Municipality and the Fire Department. The Emergency Response Plan shall be reviewed on an annual basis and updated, if necessary. The revised version of the Emergency Response Plan shall be submitted to the District Manager, the local Municipality and the Fire Department for comments and concurrence.
  - (b) The Company shall ensure that the contingency equipment and materials outlined in the Emergency Response Plan are immediately available at the Site at all times, in a good state of repair, and fully operational.
  - (c) The Company shall ensure that all operating personnel are fully trained in the use of the contingency equipment and materials outlined in the Emergency Response Plan, and in the procedures to be employed in the event of an emergency.

#### **15.0 Training**

- 15.1 A training plan shall be developed and maintained for all employees that operate the Site. Only Trained Personnel may operate the Site or carry out any activity required under this Approval.
- 15.2 As a minimum, operators of the Site shall be trained with respect to the following areas:

- (a) terms and conditions requirements of this Approval;
- (b) use and operation of equipment and management of the Site;
- (c) operating, monitoring and inspection procedures;
- (d) any environmental concerns pertaining to the Waste to be handled;
- (e) occupational health and safety concerns pertaining to the Waste to be handled;
- (f) relevant waste management legislation, regulations, including, but not limited to the Act, and O.Reg. 347;
- (g) operation of equipment and procedures to be followed in the event of an emergency situation;
- (f) specific written procedures for the control of adverse effect conditions; and
- (g) specific written procedures for refusal of unacceptable Waste loads.

#### **16.0 Site Inspection**

- 16.1 (a) An inspection of the entire Site and all equipment on the Site shall be conducted each day the Site is in operation to ensure that:
- (i) the Site is secure;
  - (ii) the operation of the Site is not causing any adverse effects on the environment; and
  - (iii) the Site is being operated in compliance with this Approval.
- (b) Any deficiencies discovered as a result of the inspection shall be remedied immediately, including temporarily ceasing operations at the Site if needed.
- (c) The Company shall ensure the Site inspections are carried out only by Trained Personnel, in accordance with the training requirements listed in Condition 15.

#### **17.0 Record Keeping**

- 17.1 A record of the inspections required by Condition 16.1 shall be kept in the daily log book or in an electronic file that includes the following information:
- (a) the name and signature of person that conducted the inspection;

- (b) the date, time and frequency of the inspections;
- (c) a list of any deficiencies discovered;
- (d) any recommendations for remedial actions;
- (e) the date, time and description of actions taken
- (f) each time a specific preventative and control measure described in the Best Management Practices Plan is implemented; including
- (g) the date when each emission control measure is installed, including a description of the control measure;
- (h) the date when each new preventative measure or operating procedure to minimize emissions is implemented, including a description of the preventative measure or operating procedure;
- (i) the date, time of commencement, and time of completion of each periodic activity conducted to minimize emissions, including a description of the preventative measure/procedure and the name of the individual performing the periodic activity.

17.2 The Company shall maintain at the Site, a daily log or an electronic file of the information related to the operations at the Site. As a minimum, the following information shall be collected and recorded:

- (a) date of soils receipt;
- (b) name of the original generator, site location, land/use of the generating site, and the quantity of the soils received;
- (c) documentation on pre-shipment soils analysis, including the sampling and analytical procedures used in soils characterization;
- (d) details of the source(s) of soils combined to formulate each biopile/biocell and the quality and the quantity of the soils used;
- (e) observations on the status of the bioremediation in each biopile/biocell on a bi-monthly basis;
- (f) the results of the analyses for the Processed Soil contained within each biopile/biocell;
- (g) a table detailing each Processed Soil receiving site, including the location, supporting documents from a Qp confirming the site meets the requirements for the processed soil, meets the land/use of the receiving site, the required treatment/clean-up standards and or limitations as stipulated in Condition 10 and the quantity of the Processed Soil shipped;
- (h) any spills or upsets as noted in Condition 14.1; and
- (i) results of the inspections required under Condition 16.1, including the name and signature of the person conducting the inspection.
- (j) records on the inspection and maintenance of the Equipment;
- (k) all records on the preventive and control measures implemented in accordance with the Best Management Practices Plan;
- (l) records on the type, frequency and quantity of Biostimulation Compound(s) used in the Process;

## **18.0 Annual Report**

18.1 By March 31, 2014, and on an annual basis thereafter, the Company shall prepare and submit to the District Manager, an Annual Report for the previous calendar year. Each report shall include, as a minimum, the following information:

**Waste**

- (a) a monthly summary of all soils received at the Site, including the category of the source of origin;
- (b) a monthly summary of the quantity of the soils processed at the Site;
- (c) a monthly summary of the quantity and quality (testing results) of soils received for Transfer from the Site (not processed), and the destinations transferred to;
- (d) records of amounts and quality of the Processed Soil shipped from the Site and the shipping destinations (including the land use designation from O.Reg. 153/04);
- (e) a monthly summary of the quantity of untreated soils remaining at the Site;
- (f) any operational problems or process upsets that may negatively impact the quality of the environment encountered during the operation of the Site and any mitigative actions taken, and including a summary of any complaints received regarding the operation of the Site;
- (g) discussions and update on the effectiveness of the design as related to actual or potential risk for contamination of groundwater and/or surface water, and the effectiveness of the treatment used in the bioremediation process;
- (h) any recommendations to minimize environmental impacts and improve Site operations and monitoring programs.

**Works**

- (i) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7.17, including an overview of the success and adequacy of the Works ;
- (j) a description of any operating problems encountered and corrective actions taken;
- (k) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works ;
- (l) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (m) a summary of all By-pass, spill or abnormal discharge events;
- (n) testing results for any sediments removed from the pond; destination for disposal; and
- (o) any other information the District Manager requires from time to time.

**Air/Noise**

- (p) a summary of all inspection and maintenance of the Equipment;
- (q) all records on the preventive and control measures implemented in accordance with the Best Management Practices Plan;
- (r) records on the type, frequency and quantity of Biostimulation Compound(s) used in the Process;
- (s) a statement if the Process is not operated in accordance with the Performance Requirements or the Operating Procedures and Maintenance Manual.

18.2 The Company shall maintain a copy of annual report at the *Site*.

**19.0 Closure Plan**

- 19.1 (a) Six (6) months prior to the planned closure of this Site, the Company shall provide to the Director, for written approval, a Closure Plan for the Site. This plan must include, as a minimum, a description of the work that will be done to facilitate closure of the Site and a schedule for completion of that work.
- (b) The Company shall implement the Closure Plan, after it has been approved, in writing, by the Director.
- (c) Within ten (10) days of closure of the Site, the Company shall notify the Director, in writing, confirming that the Site has been closed in accordance with the plan, and shall request that the Approval be revoked.

**20.0 Correspondence**

- 20.1 The Company shall ensure that all communications/correspondence made pursuant to this Approval reference this Approval number.
- 20.2 Within ninety (90) days from the date of this Approval, the Company shall take all reasonable steps to establish, maintain and participate in a Public Liaison Committee (PLC), which shall serve as a forum for dissemination, consultation, review and exchange of information regarding the operation of the Site, including environmental monitoring, maintenance, complaint resolution, and new approvals or amendments to existing approvals related to the operation of this Site.

**21.0 Site Groundwater Monitoring and Trigger**

- 21.1 The Company shall ensure that groundwater monitoring program, as described in the Design and Operations report, in attachment 12 of item 1 of Schedule "A", is implemented.
- 21.2 The Company shall ensure that the nine Site groundwater monitoring wells are monitored quarterly for: Petroleum hydrocarbons, F1 to F4, benzene, toluene, ethyl benzene and xylenes, metals, water levels and volatile organic compounds (once per year).
- 21.3 The Site monitoring program may be revised with prior written approval from the District Manager.
- 21.4 The Site monitoring trigger is established as follows: Any parameter that is detected at a concentration exceeding 50% of the O.Reg. 153/04 Table 3 limits for a site with an industrial/commercial/community property use; then, the trigger monitoring well(s) shall be re-sampled within 14 calendar days of receipt of the original results;

- (a) if the exceedance is confirmed, then;
- (b) the Company shall immediately notify the District Manager of the results; and
- (c) initiate work to assess the possible source(s), extent and solutions.

### **Works - Effluent Monitoring**

- 21.5 (1) Prior to undertaking any discharge from the stormwater pond, the Company shall collect a composite sample of the pond contents **prior to a planned effluent discharge event OR during any bypass event** and have the sample analyzed for the parameters listed in Table 2 of Schedule B.
- (2) The composite sample reference in subsection (1) shall consist of grab samples of equal volume collected at four (4) different locations in the pond.
- (3) Notwithstanding subsections (1) and (2), the Company shall collect a grab sample of the discharged effluent once per day during the four (4) day discharge period. The four (4) grab samples are to be combined to form a single four-day composite sample. The four-day composite sample shall be analyzed for the parameters listed in Table 2 of Schedule B.
- (4) The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:
- (a) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (August 1994), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;
  - (b) the Ministry's publication "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act", dated March 9, 2004; and
  - (c) the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions.
- (5) The temperature and pH of the effluent from the Works shall be determined in the field at the time of sampling for total ammonia. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

### **22.0 Noise Audit**

REVOKED

**23.0 Pilot Study**

- 23.1 The Site is approved to receive and store 20,000 tonnes of soils impacted with metals and salt, originating in the Province of Ontario, for the purpose of the Pilot Study.
- 23.2 Prior to acceptance at the Site, soils to be treated as part of the Pilot Project shall be characterized, with documentation accompanying documentation and analytical results, as per Condition 8.1
- 23.3 The soils to be used for the Pilot Study shall be stored covered, and segregated from the other on-Site soils.
- 23.4 Within eighteen (18) months of the date of issue of this Approval, the Company shall submit a Pilot Project Plan to the Director (for activities under section 27 of the Act), for Approval, and copied to the District Manager, which will include:
- \* soil characterization, chemistry and classification (grain-size distribution), proposed study method, cell construction, key study goals, process duration, proposed sampling and monitoring programs-in accordance with Schedule E of this Approval.
- 23.5 Within eighteen (18) months of the date of issue of this Approval, the Company shall submit a closure plan for the EK3 pilot study for Approval, to the Director, and copied to the District Manager.

## Schedule "A"

### WASTE

1. Application for an Environmental Compliance Approval by Ontario Soil Recycling Inc., signed by Douglas LeBlanc, President, dated March 7, 2012, including attachments 2 to 15.
2. Soil Remediation, Design and Operations Report, Dorchester Facility, dated Sept 2011, in attachment 12 of the Application.
3. Letter dated October 10, 2012, to Lynda Mulcahy, Ministry of Environment from Damian Rodriguez, Ontario Soil Recycling (Dorchester) Inc. with response to review questions.
4. Letter dated January 15, 2013, to Lynda Mulcahy, Ministry of Environment, from Damian Rodriguez, Ontario Soil Recycling (Dorchester) Inc. with responses regarding conditions 6.1(b), 7.2, 7.3(c), 11.2, 11.4, 18.1, 22.
5. Letter dated January 15, 2013, to Lynda Mulcahy, Ministry of Environment, from Damian Rodriguez, Ontario Soil Recycling (Dorchester) Inc. with responses regarding transfer activities.
6. Environmental Compliance Approval dated May 20, 2020 including all supporting documentation.

### SEWAGE WORKS

6. Application for Environmental Compliance Approval submitted by Ontario Soil Recycling-Dorchester Inc. dated December 22, 2011 and design specifications and drawings prepared by Development Engineering (London) Ltd., London, Ontario.
7. Additional information request letter regarding details of the proposed soil treatment systems to Douglas LeBlanc, President, Ontario Soil Recycling Dorchester Inc. from Stefanos Habtom, P. Eng., MOE dated May 28, 2012.
8. Letter from Damien Rodrigues, General Manager, Soil Operations, Ontario Soil Recycling-Dorchester Inc. to Stefanos Habtom, P. Eng., MOE, dated July 3, 2012 providing response to the additional information request letter dated May 28, 2012.
9. Additional information request letter regarding details of the proposed electrokinetic (EK3) soil treatment systems to Douglas LeBlanc, President, Ontario Soil Recycling Dorchester Inc. from Stefanos Habtom, P. Eng., MOE dated September 20, 2012.
10. Letter from Application for Environmental Compliance Approval submitted by Ontario Soil Damien Rodrigues, General Manager, Soil Operations, Ontario Soil Recycling-Dorchester Inc. to Stefanos Habtom, P. Eng., MOE, dated October 4, 2012 providing response to the additional information request letter dated September 20, 2012 .



## **AIR/NOISE**

11. application for Environmental Compliance Approval and the supporting documentation submitted by Ontario Soil Recycling – Dorchester Inc., signed by Douglas LeBlanc, dated December 19, 2011 and the additional information provided by Ontario Soil Recycling.
12. Acoustic Assessment Report dated July 4, 2012, prepared by Robert D. Stevens, Corey Kinart of HGC Engineering.
13. Email dated February 20, 2013 from Robert D. Stevens of HGC Engineering.

## Schedule B

### Works - Effluent Limits and Effluent Monitoring

| <b>Table 1 - Effluent Limits</b>  |   |
|---|---|
| <b>Effluent Parameter</b>   | <b>Concentration Limit</b><br>(milligrams per litre unless otherwise indicated) |
| Column 1  | Column 2  |
| <i>CBOD</i> <sub>5</sub>  | 5.0   |
| Total Suspended Solids  | 15.0  |
| Total Phosphorus  | 0.3   |
| Total Ammonia   | 0.5   |
| Benzene   | 0.001   |
| Ethylbenzene  | 0.001   |
| Toluene   | 0.001   |
| o-Xylene  | 0.001   |
| m&p-Xylene  | 0.001   |
| F1- Total Petroleum Hydrocarbons  | 0.05  |
| F2- Total Petroleum Hydrocarbons  | 0.1   |
| F3- Total Petroleum Hydrocarbons  | 1.0   |
| F4- Total Petroleum Hydrocarbons  | 1.0   |
| Arsenic   | 0.1   |
| Boron   | 0.5   |
| Cadmium   | 0.001   |
| Chromium  | 0.01  |
| Chromium (VI)   | 0.001   |
| Copper  | 0.05  |
| Lead  | 0.025   |
| Mercury   | 0.001   |
| Nickel  | 0.05  |
| Zinc  | 0.1   |
| pH of the effluent maintained between 6.5 to 8.5, inclusive, at all times |   |

| <b>Table 2 - Effluent Monitoring</b> |                           |
|--------------------------------------|---------------------------|
| <b>Effluent Parameter</b>            | <b>Effluent Parameter</b> |
| <i>CBOD</i> <sub>5</sub>             | Arsenic                   |
| Total Suspended Solids               | Barium                    |
| Total Phosphorus                     | Beryllium                 |
| Total Ammonia                        | Boron                     |
| Hardness                             | Cadmium                   |
| Alkalinity                           | Chromium                  |
| Chloride                             | Chromium (VI)             |
| Benzene                              | Cobalt                    |
| Ethylbenzene                         | Copper                    |
| Toluene                              | Lead                      |
| o-Xylene                             | Mercury                   |
| m&p-Xylene                           | Molybdenum                |
| F1- Total Petroleum Hydrocarbons     | Nickel                    |
| F2- Total Petroleum Hydrocarbons     | Vanadium                  |
| F3- Total Petroleum Hydrocarbons     | Zinc                      |
| F4- Total Petroleum Hydrocarbons     | pH                        |

NOTE: All metals including mercury will be analysed for total metals (unfiltered). However, mercury will also be analysed for dissolved metal (filtered) to ensure compliance with PWQO requirement.

**Schedule C**

(revoked)

## **Schedule D**

### **Noise Control Measures**

1. The Company shall construct one (1) 6 metres high berm to mitigate the sound from the Facility at receptors Ra and Rb. The berm shall be located on the east of the Facility and extending at least 370 metres long as depicted in Figure 4 of the Acoustic Assessment Report, continuous without holes, gaps or other penetrations, and having surface mass at least 20 kilograms per square metre.

**Schedule E**

**Pilot Study Sampling Program**

| <i>Type of Impact</i> | <i>No. of samples</i>   | <i>Type of analyses</i> <sup>1</sup>  |
|-----------------------|---|---|
| metals                | 1 discrete sample for each 50 m <sup>3</sup><br>1 discrete sample for each 200 m <sup>3</sup> | <ul style="list-style-type: none"><li>• total metals</li><li>• SVOC, VOCs<sup>2</sup>, PHC F1-F4</li></ul>  |
| salt                  | 1 discrete sample for each 50 m <sup>3</sup><br>1 discrete sample for each 200 m <sup>3</sup> | <ul style="list-style-type: none"><li>• SAR, Conductivity</li><li>• total metals, PHC F1-F4, VOCs</li></ul> |

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

## **1.0 General**

### **Compliance, Build etc. In Accordance, Interpretation, Other Legal Obligations, Adverse Effects, Change of Owner**

Conditions 1.1, 1.2 and 1.3 are included to ensure that the Site in general, and the Works are built and the Process operated in the manner in which they were described for review and upon which approval was granted; and to ensure that the Company notifies any person it authorizes to carry out work pursuant to this Approval about the existence of this Approval.

Conditions 1.4 to 1.7 are included to clarify the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

Conditions 1.8 to 1.11 are included to clarify the legal obligations of the Company, and to ensure the Site is operated in an environmentally safe manner.

Conditions 1.12 and 1.13 are included to ensure that the Ministry records are kept accurate and current with respect to the Site and the approved Works, and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

### **Discharges to Atmosphere**

Condition 1.14 is included to outline the minimum requirements considered necessary to prevent an adverse effect resulting from the operation of the Process.

### **Fugitive Dust and Odour Control**

Condition 1.15 is included to emphasize that the Process and the Equipment must be operated according to a procedure that will result in compliance with the Act, the regulations and this Approval

### **Works- Changes in Processes or Process Materials**

Condition 1.16 is included to ensure that the Works is operated in accordance with the information submitted by the Owner relating to the process and materials which are served by the Works , and to ensure that any contemplated changes in them which could potentially affect the characteristics of effluent from the Works will be properly reviewed and approved.

### **Works - Upon Substantial Completion of the Works**

Condition 1.17 is included to ensure that the Works are constructed in accordance with the approval and that record drawings of the Works “as constructed” are maintained for future references.

## **2.0 Financial Assurance**

Conditions 2.1 to 2.4 are included to ensure that, should the Company be unable or unwilling to clean up the Site, that the Ministry has sufficient funds available to do so.

## **3.0 Certificate of Requirement**

Conditions 3.1 and 3.2 are included to ensure that anyone with an interest in the Site is made aware of its use for waste processing.

## **4.0 Inspections by the Ministry**

Condition 4.1 is included to ensure that the Ministry has access to the Site for assessing compliance with this Approval, and applicable Acts and regulations

## **5.0 Information and Record Retention**

Conditions 5.1 and 5.2 are included to ensure that records are kept for Ministry review, to confirm compliance with this Approval, applicable Acts and regulations

## **6.0 Waste Types and Service Area**

Conditions 6.1 and 6.2 are included to clarify what types of wastes may be received at the Site.

## **7.0 Operation**

### **Hours**

Condition 7.1 is included to state when the Site may operate, and to ensure that the Ministry is informed and authorizes any temporary changes in hours.

### **Operating Procedures and Maintenance Manual**

Condition 7.2 is included to ensure the Process is carried out as approved, and in a manner that prevents impacts to the environment

### **Daily Waste Limits**

Condition 7.3 is included to clarify the daily limits imposed on the Site

### **Storage Capacity and Duration**

Conditions 7.4 to 7.14 are included to clarify the storage limits for the Site, to ensure that the site is constructed and operated as approved.

### **Works- By-Passes**

Conditions 7.15 is included to indicate that by-passes of untreated sewage to the receiving watercourse is prohibited, save in certain limited circumstances where the failure to By-pass could result in greater injury to the public interest than the By-pass itself where a By-pass will not violate the approved effluent requirements, or where the By-pass can be limited or otherwise mitigated by handling it in accordance with an approved contingency plan. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of By-pass events.



### **Works -Operation and Maintenance**

Condition 7.16 is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Company and made available to the Ministry . Such a manual is an integral part of the operation of the Works . Its compilation and use should assist the Company in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Company's operation of the Works .

### **Works - Effluent Limits**

Condition 7.17 is included to ensure that the effluent discharged from the Works to the receiver meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.

### **Site Security**

Condition 7.18 is included to ensure that the Site is secure, to prevent impacts to persons and the environment.

### **Signage**

Condition 7.19 is included to ensure that the public and site users are aware of the hours of operation for the Site, and have the information on how to report any issues regarding the site

### **Waste Inspections**

Conditions 7.20 and 7.21 are included to ensure that the wastes are inspected, that a process is established for removal of unacceptable waste, and that records are kept for Ministry review, if needed.

### **Requirement to Characterize at the Site**

Conditions 8.0 and 9.0 are included to set out the testing requirements when the Owner is required to carry out testing at the Site to characterize the incoming Waste for its compatibility with on-site processing and incoming or outgoing Waste for its compatibility with the proposed off-site destination.

### **Tested Soil Quality Criteria, Soil Disposal and Reuse Requirements**

Condition 10.0 is included to ensure that all Tested Soil is properly managed, processed and disposed of in accordance with the Ministry's regulatory requirements and in a manner that protects the health and safety of the public and the environment.

### **12.0 Chemical Storage and Spill Prevention**

Condition 12.1 is included to ensure that materials which may pose a risk to persons or the environment are stored in a manner that reduces this risk.

### **13.0 Complaints Procedure**

Condition 13.1 is included to ensure that a procedure is in-place to record and respond to possible issues

regarding the operation of the Site

#### **14.0 Spill Contingency and Emergency Response**

Conditions 14.1 and 14.2 are included to ensure that a response procedure is established and followed, and the Ministry is informed of any unintended spill, release or discharge from the Site.

#### **15.0 Training**

Conditions 15.1 and 15.2 are included to ensure that persons operating or working at the Site have adequate training.

#### **16.0 Site Inspection**

Condition 16.1 is included to ensure that regular inspections are done at the Site, to ensure that the conditions of this Approval are met, and that the Site does not cause an adverse effect

#### **17.0 Record Keeping**

Condition 17.1 and 17.2 are included to ensure that information regarding Site operation is available to the Ministry for review, and to ensure compliance with this Approval.

#### **18.0 Annual Report**

Condition 18.1 is included to ensure information is provided to the Ministry regarding site operation. Monitoring information and interpretation is needed to ensure the site is not causing an adverse effect.

#### **19.0 Closure Plan**

Condition 19.1 is included to ensure that a plan is established for the orderly closure of the Site, and to ensure the Ministry is made aware that operations will cease.

#### **20.0 Correspondance**

Condition 20.1 is included to ensure that communications or correspondance reference the site Approval. Condition 20.2 is included to ensure that a free exchange of information regarding the site is available, for interested parties and the Company.

#### **21.0 Site Groundwater Monitoring and Trigger**

Conditions 21.1 to 21.4 are included to ensure that information on conditions at the Site are monitored and recorded, and so that a plan is established should an established limit be exceeded.

Condition 21.5 is included to require the Owner to demonstrate on a continual basis that the quality of the effluent from the approved Works is consistent with the effluent objectives and limits specified in the Approval and that the approved Works does not cause any impairment to the environment.

#### **22.0 Noise Audit**

Conditions 22.1 to 22.3 are included, to ensure that the Company acquires accurate information so that any possible environmental impact can be assessed and corrected, and to ensure compliance with this Approval, the Act, and regulations

### 23.0 Pilot Study

Conditions 23.1 to 23.5 are included to ensure that soils suitable for the pilot test can be properly stored at the Site, that additional information on the proposed pilot study will be submitted to the Ministry for review, and to ensure that a plan is established for closure of the pilot study, once finished.

### **Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 8096-8UEJJJ issued on March 21, 2013**

*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](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 <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 8th day of November, 2021



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Mohsen Keyvani, P.Eng.

Director

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

AN/

c: District Manager, MECP London - District  
Damien Rodriguez, GFL Environmental Inc.