

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5203-9CCJ5V

Issue Date: November 27, 2023

GFL Environmental Inc.
85 Vickers Rd
Toronto, Ontario
M9B 1C1

Site Location: 85 Vickers Rd (Etobicoke)
Toronto, Ontario
M9B 1C1

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:

use and operation of a 3.0-hectare Waste Disposal Site (Processing/Transfer) and Class 1 Soil Management Site for management of excess soil limited to dry soil and encompassing the following:

- processing activities:
 - receipt of the dry soil destined for bioremediation at the site;
 - temporary storage of the dry soil within the confines of the building; and
 - processing, including treatment, of the dry soil and consisting of the following processes and support units:
 1. processing of the dry soil with a shaking/screening unit equipped with a bioaugmentation compound(s) injection system at the exit of the unit;
 2. addition of biostimulation compound(s) and amendment material(s) to the dry soil;
 3. transfer of the dry soil from the preparation areas to the biopile areas;
 4. mechanically-aerated bioremediation of the dry soil in the biopiles, located within the confines of the building; and
 5. washing of contaminated rocks removed from the dry soil;
 6. temporary storage of the processed soil in the temporary building;
 7. transfer of the processed soil off-site;

- transfer activities:
 - receipt of the dry soil destined for transfer off-site;
 - temporary storage of the dry soil within the confines of the building; and and
 - transfer of the dry soil off-site or screening and transfer of the dry soil off-site.

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

"Adverse Ecological Effects" in the context of this Approval and for the purpose of clarifying the definition of Bioaugmentation Compound, it means the ability of the micro-organism to adversely alter biotic and abiotic components of the ecosystem (e.g. loss of biodiversity, loss of habitat);

"Adverse Effect" as defined in the EPA;

"Air/Noise Approval" means the environmental compliance approval and any Schedules attached to it, including the application and its supporting documentation for activities set out in section 9 of the EPA and carried out at the Site;

"Amendment Material(s)" means any amendment material as described in the Owner's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval to be used in the Bioremediation to improve the structure of the Dry Soil to enhance the effectiveness of the Bioremediation;

"Approval" means this entire Environmental Compliance Approval document, issued in accordance with the EPA, and includes any schedules to it, the application and the supporting documentation listed in Schedule 1;

"Bioaugmentation Compound" means the exogenous, non-pathogenic, non-toxic, and not able to cause an Adverse Ecological Effect, specialized microbes used to enhance Bioremediation. In this Approval, it means the compound(s) described in the Owner's application, this Approval and in the supporting documentation submitted with the application including the Safety Data Sheets (SDSs) submitted with the application, to the extent approved by this Approval;

"Biopile" means the Dry Soil treatment cell up-to 6 metres in height, without perforated pipe air injection but mechanically aerated, with additions of Bioaugmentation Compound and/or Biostimulation Compound(s) and/or Amendment Material(s), as described in the supporting documentation listed in the attached Schedule 1, and where measured oxygen concentration within the Biopile is not less than 15%;

"Bioremediation Material(s)" means the materials listed in Condition 3.2;

"Bioremediation" means aerobic biodegradation treatment conducted under controlled engineered conditions designed to reduce organic Contaminants concentrations in the Dry Soil in the Biopiles, as described in the supporting documentation listed in the attached Schedule 1, to the extent approved by this Approval;

"Biostimulation Compound(s)" means any chemical amendment, nutrient amendment or pH adjustment chemical, other than a Bioaugmentation Compound used in the treatment to enhance Bioremediation. In this Approval, it means the compound(s) described in the supporting documentation listed in the attached Schedule 1 including the Safety Data Sheets (SDSs) submitted with the application, to the extent approved by this Approval;

"BMPP" means the documents entitled "Best Management Practices Plan for Fugitive Dust" and "Best Management Practices Plan for Odour", prepared by GFL Environmental Inc., as approved in the Air/Noise Approval and/or accepted by the District Manager;

"Building" means the building located at the Site and approved under this Approval for receipt, temporary storage and processing of the Dry Soil and shown on the Site layout plans listed in the attached Schedule 1;

"Class 1 Soil Management Site" has the same meaning as in O. Regulation 406/19;

"Composite Samples" means samples that are made up of a number of laboratory grab samples from a single sample container that have been thoroughly mixed together;

"Compost" has the same meaning as set out in the document entitled "Ontario Compost Quality Standards" dated July 25, 2012, as amended;

"Contaminants" have the same meaning as in O. Regulation 153/04;

"Demonstration Study" means the proposed Bioremediation of the Dry Soils with Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations in Biopiles with mechanical aeration;

"Director" means any Ministry employee appointed in writing by the Minister pursuant to Section 5 of the EPA as a Director for the purposes of Part V of the EPA;

"Discrete Samples" within the context of this Approval, mean individually separate grab samples collected for analysis when creation and analysis of a composite sample is not appropriate;

"District Manager" means the District Manager of the local district office of the Ministry for the geographic area in which the Site is located;

"Dry Soil" is as defined in O. Regulation 406/19 and within the context of this Approval also means a waste which contains Contaminants 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 section 20.2 of Part II.1 of the EPA. Dry Soil is a solid non-hazardous waste that is received at the Site for Bioremediation or transfer off-Site with no processing;

"**EASR**" means the Environmental Activity and Sector Registry;

"**EPA**" means the *Environmental Protection Act*, R.S.O. 1990, c. E. 19, as amended;

"**Excess Soil Criteria**" means the Excess Soil 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 standards 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 and Dry Soil/Rock mixture accepted at the Site to be managed in accordance with this Approval and the Processed 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/outgoing Dry Soil which does not contain more Rock than allowed for a particular Reuse Site;

"**Final Disposal**" within the context of this Approval means land disposal and thermal treatment, both as defined in Regulation 347, and does not include handling, storing, transferring, treating or processing of waste at a land disposal or a thermal treatment site;

"**Grab Samples**" within the context of this Approval, means independent sets of representative samples taken from different locations within the volume being sampled, using a systematic method of selecting random, unbiased locations and based on scientific and statistical principles applicable to sampling;

"**Higher Petroleum Hydrocarbons Concentrations**" means the concentrations of Contaminants exceeding Table 2.1 Excess Soil Standards for petroleum hydrocarbon fractions F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34) and petroleum hydrocarbon VOCs limited to Benzene, Toluene, Ethyl Benzene and Xylene;

"**IC&I**" means industrial, commercial and institutional;

"**Inert Fill**" as defined in Regulation 347;

"**Leachate Screening Levels**" means values that are listed in the tables of Leachate Screening Levels within Part II – Excess Soil Quality Standards, contained in Appendix 2 of the Soil Rules;

"**Liquid Soil**" is as defined in O. Regulation 406/19 and within the context of this Approval also means a waste that has a Slump of more than 150 millimetres determined using the Slump Test and which does not contain more Rock than allowed in the Excess Soil and/or which does not contain more than insignificant amounts of debris or other non-hazardous waste a handling of which is subject to the environmental compliance approval requirements under the EPA;

"**Liquid Waste**" means a waste that has a Slump of more than 150 millimetres determined using the Slump Test;

"m" means metre;

"m³" means cubic metre;

"**Ministry**" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

"**Mix**" means the mixture of the Dry Soil and the Biostimulation Compound(s), the Bioaugmentation Compound(s) and the Amendment Materials approved in this Approval required for Bioremediation at the Site;

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

"**O. Regulation 153/04**" means Ontario Regulation 153/04: Records of Site Condition - Part XV.1 of the EPA, as amended;

"**O. Regulation 406/19**" means Ontario Regulation 406/19, entitled "On-Site and Excess Soil Management" made under the EPA, as amended;

"**Other Organic Contaminants Concentrations**" within the context of this Approval, mean the concentrations of volatile organic contaminants other than Petroleum Hydrocarbons;

"**Owner**" means GFL Environmental Inc., and includes its officers, employees, agents and contractors and includes any successors and assigns in accordance with section 19 of the EPA;

"**OWRA**" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;

"**PA**" means the *Pesticides Act*, R.S.O. 1990, c. P-11, as amended;

"**Pathogenicity**" in the context of this Approval and for the purpose of clarifying the definition of Bioaugmentation Compound, it means the ability of an organism to cause harm or disease to the host. This ability is a property of the pathogen and the extent of damage done to the host depends on host-pathogen interactions;

"**Petroleum Hydrocarbons**" within the context of this Approval, mean organic Contaminants limited to petroleum hydrocarbon fractions: F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34) and petroleum hydrocarbon VOCs limited to Benzene, Toluene, Ethyl Benzene and Xylene;

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

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

"**Potentially Contaminating Activity**" is any activity listed in Table 2 to Schedule D of O. Regulation

153/04;

"Processed Soil" means the Dry Soil processed at the Site, where processing is limited to screening and Bioremediation and bulking, mixing or blending of Similar Soils as set out in this Approval;

"Processing Area" means the area of the Site where all waste management activities approved under this Approval and described in the attached supporting documentation listed in Schedule 1 are proposed to be carried out;

"Analytical Protocol" is as defined in O. Regulation 153/04 and it means 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;

"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 EPA or Section 17 of the PA or Section 4 of the NMA or Section 8 of the SDWA;

"Putrescible Waste" means organic waste that decomposes rapidly, such as food waste;

"Qualified Person" 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. Qualified Person also means a person as defined in O. Regulation 406/19;

"Regulation 347" means Regulation 347 - General - Waste Management, R.R.O. 1990, made under the EPA, as amended;

"Rejected Waste" means the incoming load inadvertently received at the Site and deemed by the Owner to be a waste that does not comply with the quality criteria required for acceptance at the Site;

"Residual Waste" means waste remaining after processing at the Site and that is destined for Final Disposal or further processing at another approved waste disposal site;

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

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

"SAR" means sodium adsorption ratio;

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

"Similar" within context of this Approval means the types of waste, tested to show that they are of comparable quality (for example: Table 1.1, 2.1 or 3.1 of the Excess Soil Standards) required for Bioremediation at the Site, transfer from the Site to the same final destination (for example: deposition at

the same Reuse Site or for further processing off-Site or for Final Disposal at the same approved waste disposal site or a site approved/permitted to accept such waste by an appropriate regulatory agency of equivalent jurisdiction);

"**Site**" means the site located at 85 Vickers Rd, Toronto, Ontario, M9B 1C1;

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

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

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

"**Source Site**" means the source of the incoming Dry Soil;

"**Spill**" is as defined in the EPA;

"**SVOCs**" means semi-volatile organic compounds;

"**Table 1 Excess Soil Standards**" means the Excess Soil Standards from Table 1 set out in the Soil Rules document;

"**Table 2.1 Excess Soil Standards**" means the Excess Soil Standards from Table 2.1 set out in the Soil Rules document;

"**Table 3.1 Excess Soil Standards**" means the Excess Soil Standards from Table 3.1 set out in the Soil Rules document;

"**TCLP**" means the Toxicity Characteristic Leaching Procedure which is defined in Regulation 347 as the Toxicity Characteristic Leaching Procedure, Method 1311, that appears in United States Environmental Protection Agency Publication SW-846 entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", as amended from time to time, or a test method that the Director has approved in writing as equivalent;

"**Temporary Building**" means the temporary building located at the Site approved under this Approval for storage of the Processed Soil and and the incoming Dry Soil that contains the Contaminants not exceeding the limits in Table 2.1 of the Excess Soil Standards, shown on the Site layout plans listed in the attached Schedule 1;

"**Tested Soil**" means the incoming Dry Soil destined for Bioremediation or transfer off-Site and/or the Processed Soil that have been tested in accordance with this Approval to demonstrate compliance with the appropriate criteria for receipt at the Site and/or transfer to a particular final destination set out in this Approval;

"**Toxicity**" in the context of this Approval and for the purpose of clarifying the definition of Bioaugmentation Compound, it means the degree to which a substance (toxin) or an organism can cause harm to living organism as a whole, its tissues or its cells. Live microorganisms need not necessarily be present for a toxic effect to occur (e.g., in toxin-mediated food poisoning or for toxic products of micro-organisms used in industrial applications);

"**Trained Person**" means an employee trained in accordance with the requirements of Condition 11.2 and is knowledgeable through instruction and/or practice and able to carry out any necessary duties;

"**Transfer**" means the receipt, temporary storage and subsequent transport off-Site to a Reuse Site, to a waste disposal site or to any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction;

"**VOCs**" means volatile organic compounds. VOC means any organic compound having, at 20 degrees Celsius (°C), a vapour pressure of 0.01 kilopascal or more or having a corresponding volatility under the particular conditions of use, which is released into the atmosphere; and

"**Waste**" and "**waste**" within the context of this Approval, it means any material defined as a waste or designated to be a waste under any provincial Act or regulation or any other discarded, unwanted, unsuitable for its original use or purpose (for example off-specification or expired) post-consumer goods, items, materials and including Dry Soil and Rock destined for receipt at the Site. Outputs from processing/treatment of waste at a waste disposal site continue to be considered a waste.

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

1.1 Compliance

- (1) The Owner 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 is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- (2) Any person authorized to carry out work on or operate any aspect of the Site shall comply with the conditions of this Approval.

1.2 Build, etc. in Accordance

- (1) Except as otherwise provided by this Approval, the Site shall be designed, developed, built, operated and maintained in accordance with the application for this Approval application for this Approval dated August 8, 2013 and signed by Allen Shully, Clean Soils Inc., and the supporting documentation listed in the attached Schedule 1 and the modifications to the Site as proposed in the Items #4 to #10 of the attached Schedule 1 shall be constructed and the approved equipment shall be installed and must commence operation, within five (5) years of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Site not in operation. In the event that the construction, installation and/or operation of any portion of the Site is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change(s).

1.3 As-built Drawings

- (1) A set of as-built drawings, certified by a professional engineer and showing the design of the Site, shall be kept at the Site at all times.

1.4 Interpretation

- (1) 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.
- (2) Where there is a conflict between the application and a provision in any documents listed in Schedule 1, 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.
- (3) Where there is a conflict between any two documents listed in Schedule 1, other than the application, the document bearing the most recent date shall take precedence.
- (4) 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.

1.5 Other Legal Obligations

- (1) 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

Owner to furnish any further information related to compliance with this Approval.

- (2) 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 or impairment of water quality.

1.6 Adverse Effect

- (1) The Site shall be constructed, operated and maintained in a manner which ensures the health and safety of all persons and prevents generation of negative environmental impacts including but not limited to dust, odours, vectors, pests, birds, litter, vibration, noise and any other negative environmental effects that may cause an Adverse Effect.
- (2) If at any time dust, odours, vectors, pests, birds, litter, vibration, noise or other such negative environmental effects are generated at the Site and cause an Adverse Effect, the Owner shall take immediate and appropriate remedial action(s) that is/are necessary to alleviate-the Adverse Effect, including suspension of all waste management activities and removal of waste from the Site, if necessary.
- (3) The Owner shall take steps to minimize and ameliorate any Adverse Effect on the natural environment or impairment of water quality resulting from the approved operations at the Site, including such steps as accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

1.7 Change of Owner

- (1) 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 change in:
 - a. the ownership of the Site;
 - b. the operator of the Site;
 - c. the address of the Owner;
 - d. 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; or
 - e. 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.
- (2) 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. 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.

1.8 Inspections by the Ministry

- (1) No person shall hinder or obstruct a Provincial Officer from carrying out any and all inspections authorized by the OWRA, the EPA, 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;
 - e. to conduct interviews with staff, contractors, agents and assignees of the Owner; and
 - f. to sample and monitor for the purposes of assessing compliance with the terms and conditions of this Approval or the EPA, the OWRA, the PA, the SDWA or the NMA.

1.9 Information and Record Retention

- (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, upon request, be provided to the Ministry in a timely manner and in a format specified by the Ministry. All records shall be retained for two (2) years except as otherwise authorized in writing by the Director.
- (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.
- (3) The Owner shall ensure that a copy of this Approval, in its entirety and including all its Notices of

Amendment, and the documentation listed in Schedule 1, are retained at the Owner's office at all times.

1.10 Financial Assurance

- (1) The Owner shall maintain, the Financial Assurance, as defined in Section 131 of the EPA in the amount of CAN \$508,438.00 and within thirty (30) days from the date of this Approval the Owner shall submit an additional Financial Assurance in the amount of CAN \$585,652.00, to a total Financial Assurance of \$1,094,090.86. This Financial Assurance shall be in a form acceptable to the Director and shall provide sufficient funds for the transportation, Site clean-up and disposal of all quantities of waste on the Site at any one time.
- (2) Commencing on September 30, 2028 and at intervals of five (5) years thereafter, the Owner shall submit to the Director, a re-evaluation of the amount of Financial Assurance to implement the actions required under Condition 1.10.(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 thirty (30) calendar days of written acceptance of the re-evaluation by the Director.
- (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.

1.11 Other Approvals

- (1) The Owner shall ensure that the Site is not operated unless all approvals for the activities set out in Section 9 of the EPA, where applicable, have been obtained.
- (2) The Owner shall ensure that the Site is not operated unless all approvals the activities set out in Section 53 of the OWRA, where applicable, have been obtained.

2.0 SIGNS and SITE SECURITY

2.1 Sign

- (1) The Owner shall maintain a sign at the entrance to the Site. The sign shall be visible and readable from the main road leading to the Site. The following information shall be included on the sign:
 - a. name of the Owner and the Site's address;
 - b. this Approval number;
 - c. hours during which the Site is open;
 - d. waste types that are approved to be accepted at the Site;
 - e. Owner's telephone number to which complaints may be directed;

- f. Owner's twenty-four hour emergency telephone number (if different from above);
- g. a warning against unauthorized access; and
- h. a warning against dumping at the Site.

2.2 Security

- (1) The Owner shall ensure that the Site is secured and that all entrances are secured by lockable gates to prevent unauthorized access when the Site is not open.
- (2) The Owner shall ensure that the Site is operated in a safe and secure manner, and that all waste is properly handled, contained, stored and labelled so as not to pose any threat to the general public and the Site personnel.

3.0 SERVICE AREA, APPROVED WASTE TYPES and RATES

3.1 Service Area

- (1) The service area approved under this Approval is the Province of Ontario.

3.2 Approved Waste Types and Bioremediation Materials

- (1) The Site is approved to receive Excess Soil limited to non-hazardous Dry Soil.
- (2) Notwithstanding provisions of Condition 3.2(1), the Site may only receive Dry Soil for Bioremediation that,
 - a. contains biodegradable Contaminants, limited to petroleum hydrocarbons, in concentrations that can be Bioremediated in accordance with the Bioremediation process parameters approved in this Approval and in the Air/Noise Approval; and
 - b. does not contain non-biodegradable Contaminants at concentrations exceeding the applicable Excess Soil Criteria for deposition at the Reuse Site or the applicable criteria required for a transfer to a waste disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction;
- (3) Despite provisions of Conditions 3.2(2)a. and 3.2(2)b., for the purpose of carrying out for the Demonstration Study, the Owner may receive Dry Soil that contains Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations so that the Bioremediated in accordance with the Bioremediation process parameters approved in this Approval and in the Air/Noise Approval can be evaluated when treating different Contaminants and in different concentrations.
- (4) The following Bioremediation Materials are approved for receipt, temporary storage and use at the Site:

- a. Biostimulation Compound(s);
 - b. Bioaugmentation Compound(s); and
 - c. Amendment Material(s).
- (5) The following Biostimulation Compound(s) are approved for receipt, temporary storage and use at the Site:
- a. processed organic waste limited to Compost;
 - b. nutrients as described in the Owner's application; and
 - c. pH adjustments as described in the Owner's application.
- (6) The following Bioaugmentation Compound(s) are approved for receipt, temporary storage and use at the Site:
- a. products as listed in the supporting documentation listed in Schedule 1 as required to achieve desired Bioremediation treatment of the Mix.
- (7) The following Amendment Material(s) are approved for receipt, temporary storage and use at the Site:
- a. straw;
 - b. wood chips; and
 - c. peat and natural wood products as listed in the supporting documentation listed in Schedule 1 as required to achieve desired porosity of the Mix.

3.3 Prohibited Waste Types

- (1) The Site is not approved to receive any subject waste as defined in Regulation 347.
- (2) The following waste types are prohibited from being accepted for processing or transfer at the Site:
- a. Dry Soil that has been generated or has been previously transferred to any facility in the Province of Ontario from outside of the Province Ontario; and
 - b. Liquid Waste, including Liquid Soil, as defined in this Approval.
- (3) The Site is not approved to receive any Putrescible Waste with the exception of incidental amount of Putrescible Waste that may not be separated out of the incoming Dry Soil. If a load of incoming Dry Soil containing more than an incidental amount of Putrescible Waste is received at the Site, it shall be removed from the Site as soon as possible but not later than twenty-four (24) hours from the time of its receipt.
- (4) No free-phase liquid (non-aqueous phase liquid), excluding water, shall be present in the Dry Soil.

3.4 Dry Soil Receipt Rates

- (1) The Site is approved to receive a maximum of 3,000 tonnes of Dry Soil per day.
- (2) On an emergency basis, the Site is approved to receive up-to a maximum of 6,000 tonnes of Dry Soil per day subject to compliance with the records-keeping requirements in Condition 14.1, below, and the District Manager notification requirements set out in Condition 15.2, below.
- (3) The Site is approved to receive a maximum of 936,600 tonnes of Dry Soil per year.

4.0 SITE OPERATIONS

4.1 Operating hours:

- (1) Dry Soil movement activities and/or operation of the Site are permitted to operate 24 hours a day, 7 days a week, unless otherwise limited by municipal by-laws.

4.2 Approved Waste Management Activities

Dry Soil Processing

- (1) The following Dry Soil processing activities are approved in this Approval:
 - a. weighing all incoming and outgoing truck loads and recording the results;
 - b. review of the incoming Dry Soil documentation and confirmation of compliance with the Approval requirements;
 - c. receipt and visual inspection of the incoming Dry Soil prior to unloading, if possible, and upon unloading;
 - d. receipt, temporary storage, screening and processing of the Dry Soil that can be Bioremediated as follows:
 - i. optional mixing of the Similar Dry Soils destined for Bioremediation at the Site;
 - ii. mixing of the Dry Soil and/or the Similar Dry Soils with the Bioaugmentation Compound(s) solution, the Biostimulation Compound(s) and the Amendment Materials into the Mix, as required;
 - iii. Bioremediation of the Mix in Biopiles, including subsequent mechanical aeration and addition of the Bioaugmentation Compound(s) solution, the Biostimulation Compound(s) and/or the Amendment Materials, as required, and installation and re-installation of the process monitoring piping; and

- e. sampling and testing of the Processed Soil, as required;
- f. optional mixing, bulking or blending of the Similar Tested Soils intended for transfer off-Site to the same destination; and
- g. transfer of the Tested Soil to a Reuse Site or a waste disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction.

Dry Soil Transfer

- (2) The Owner is approved to carry out the following transfer activities:
- a. weighing all incoming and outgoing truck loads and recording the results;
 - b. review of the incoming Dry Soil documentation and confirmation of compliance with the Approval requirements;
 - c. receipt and visual inspection of the incoming Dry Soil prior to unloading, if possible, and upon unloading;
 - d. receipt and temporary storage of the Dry Soil;
 - e. optional screening of the Dry Soil;
 - f. sampling and testing of the Dry Soil, as required;
 - g. optional mixing, bulking or blending of the Similar Tested Soils intended for transfer off-Site to the same destination; and
 - h. transfer of the Tested Soil to a Reuse Site or a waste disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction.

Dry Soil Management Requirements

- (3) The Owner shall ensure that all Dry Soil, the Residual Waste, the Rejected Waste and the Processed Soil management activities at the Site are carried within the confines of the Building and the Temporary Building, at all times.
- (4) All activities approved under this Approval shall only be carried out by the Trained Personnel appropriately trained as set out in Condition 11.2.
- (5) The Owner shall segregate the Dry Soil stockpiles of different quality and destined for different destinations to ensure that the outbound Dry Soil is sent to appropriate destinations.
- (6) All emergency spill clean-up Dry Soil shall be segregated from other Dry Soil, including the Processed

Soil and the Tested Soil, until the required characterization is completed, at which point the emergency spill clean-up Dry Soil may be mixed, bulked or blended with the other Dry Soil destined either to undergo comparable processing or transfer off-Site to the same appropriate destination.

- (7) Unless otherwise specified in this Approval, the approved activities shall be carried out as set out in the documents in the attached Schedule 1.

Rejected Waste and the Residual Waste Management

- (8) The following the Rejected Waste and the Residual Waste management activities are approved in this Approval:

- a. temporary storage;
- b. sorting of the Residual Waste to remove Rock(s) and decontamination of Rock(s) as proposed in the supporting documentation listed in the attached Schedule 1;
- c. collection of liquid Residual Waste, limited to run-off/leachate in indoor catch basins and temporary storage in an underground storage tank at the Site as proposed in the supporting documentation listed in the attached Schedule 1; and
- d. transfer from the Site to a waste disposal site or to any other site approved/licenced to accept such waste by an appropriate government agency of equivalent jurisdiction.

Stormwater Management

- (9) The Owner shall manage the stormwater collected in the outdoor catch basins at the Site as proposed in the supporting documentation listed in the attached Schedule 1.
- (1) If the Owner is not able to discharge the collected stormwater to the municipal sewer as proposed in the supporting documentation listed in the attached Schedule 1, the Owner shall notify the District Manager as required by Condition 15.3.

4.3 Receipt of Dry Soil at the Site

- (1) Dry Soil loads arriving at the Site shall be accompanied by the required documentation as set out in Conditions 4.4 through 4.6.
- (2) At the scale house, prior to accepting the incoming Dry Soil at the Site, the Trained Personnel shall review the required documentation for the incoming Dry Soil and if the documentation is acceptable, direct the truck to the designated characterized Dry Soil unloading area.
- (3) When insufficiently characterized or uncharacterized Dry Soil is being accepted at the Site, upon arrival at the Site, the Trained Personnel shall direct the truck to the designated uncharacterized Soil unloading area and the Soil shall be transferred forthwith from the truck into a designated storage area

that is separated from other Soil and materials at the Site.

- (4) The Trained Personnel shall visually inspect the incoming Dry Soil loads at the scale house, if possible, and again as it is being unloaded.
- (5) All Dry Soil and the Bioremediation Materials unloading shall be undertaken within the confines of the Building and in the designated receiving areas as proposed in the supporting documentation listed in the attached Schedule 1.
- (6) Any Dry Soil that exhibits characteristics suggesting that it is not an approved waste type shall be deemed a Rejected Waste and disposed of in accordance with this Approval, the EPA and Regulation 347.
- (7) No Dry Soil shall not to be stored within vehicles at the Site, unless the vehicles are parked within the confines of the Building and the storage duration does not exceed twenty four (24) hours from the time of the vehicle's arrival at the Site.
- (8) The Owner shall only accept the Dry Soil that was transported to the Site by haulers approved by the Ministry, or registered on the EASR, as required.

4.4 Dry Soil Source Site/Generator Documentation

For Each Source Site/Generator

- (1) The Source Site/generator documentation shall be for the Dry Soil from each Source Site/generator.

Required Source Site/Generator Documentation

- (2) Prior to accepting any Dry Soil at the Site, the Owner shall acquire from the Source Site owner/generator the documentation that contains following information on the Source Site/generator, as applicable:
 - a. the generator's name and/or company name, address and contact information;
 - b. the Source Site/generator location;
 - c. current Source Site/generator activities and land use, including identifying any certain or likely Potentially Contaminating Activity;
 - d. past Source Site/generator activities and land use, including identifying any certain or likely Potentially Contaminating Activity;
 - e. for emergency response locations, the list of the spilled materials and/or cleanup materials; and

f. estimated quantity of the Dry Soil to be received at the Site.

4.5 Incoming Dry Soil Characterization Requirements

For Each Source Site/Generator

(1) The Dry Soil characterization documentation shall be for the Dry Soil from each Source Site/generator.

Sampling and Testing Protocols and Methods

(2) When determining the acceptable sampling and testing protocols and methods, the following shall be determined:

- a. sampling and testing protocols and methods, including the number of samples taken and their locations, the sampling methods used and handling of the samples, including references to any Ministry-published protocols or methods used, including but not limited to the following:
 - i. subsections 2.(3)15. (In Situ Sampling) or 2.(3)16. (Stockpile Sampling) of Section B of Part I of the Soil Rules; and
 - ii. Ministry's document entitled "*Principles of Sampling and Analysis of Waste for TCLP under Reg. 347*", as amended;
- b. description of any deviations from the Ministry-published protocols and methods and whether or not the proposed protocols and methods used were as recommended by the Qualified Person and/or the accredited laboratory service provider.

Solid or Liquid Waste Determination

(3) If the Excess Soil has a high moisture content, to determine if the Excess Soil is a solid or a liquid, the Slump shall be determined using the Slump Test.

Hazardous Waste Definition Triggers

- (4) To confirm that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347, the following shall be determined:
- a. procedures used to determine the Contaminants and the parameters that require physical and chemical analysis, including TCLP, to confirm that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347; and
 - b. technical justification for the selection of the Contaminants/parameters, including analysis of the Source Site/generator information from Condition 4.4(2).

Bulk Concentrations of Contaminants and Other Characteristics

- (5) When bulk concentrations of the Contaminants are required, the following bulk concentrations shall be tested for:
- a. petroleum hydrocarbon fractions: F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34);
 - b. petroleum hydrocarbon VOCs limited to Benzene, Toluene, Ethyl Benzene and Xylene;
 - c. heavy metals and hydride-forming metals (antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, uranium, vanadium and zinc);
 - d. other applicable potential Contaminant(s) listed in Excess Soil Standards in Part II of the Soil Rules, including any other VOCs and SVOCs or inorganics, as determined from the information contained in the general documentation required in Condition 4.4(2); and
 - e. Electrical Conductivity (EC) and Sodium Adsorption Ratio (SAR).
- (6) When bulk concentrations of the Contaminants are required, the following shall be determined:
- a. procedures used to determine the Contaminants that require chemical analysis; and
 - b. technical justification for selection of the Contaminants, including analysis of the Source Site/generator information from Condition 4.4(2).
- (7) When bulk concentrations of the Contaminants are required the testing for the concentrations shall be completed in accordance with the requirements of section 47 of O. Regulation 153/04 (Analytical procedures), including the requirements in relation to the handling and storage of the samples, the requirement that the analyses of the samples be carried out by an accredited laboratory service provider and the requirements to comply with the Analytical Protocol.
- (8) Until the Ministry-published analytical methods allow use of an X-ray fluorescence (XRF) analyzer to demonstrate compliance with the Excess Soil Standards, the Owner is approved to use an X-ray fluorescence (XRF) analyzer as a screening tool to estimate the metals concentrations but not as a compliance test method replacement as required in Condition 4.5(7).

Leachate Screening Levels

- (9) To demonstrate compliance with the Leachate Screening Levels, the following shall be used:
- a. the Ministry's Synthetic Precipitation Leaching Procedure (E9003 or mSPLP) or another method approved by the Director. The subsequent analysis of the leachate must be completed in accordance with the requirements of section 47 of O. Regulation 153/04 (Analytical procedures), including the requirements in relation to the handling and storage of the samples, the requirement that the

analyses of the samples be carried out by an accredited laboratory service provider and the requirements to comply with the Analytical Protocol.

Discrete Samples

- (10) 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 1×10^{-5} atmosphere m^3/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, Methylnaphthalene (2-(1-)), Naphthalene, and Phenanthrene; and
 - e. polycyclic aromatic hydrocarbons / acid/base/neutral compounds (PAHs/ABNs).

Composite Samples

- (11) Composite Samples shall be taken when analysing for SVOCs with the Henry's Law constant less than 1×10^{-5} atmosphere m^3/mol and/or vapour pressure less than 0.05 mm Hg.

Instructions from Qualified Person

- (12) When accepting characterized Dry Soil, the Owner shall only accept Dry Soil has been characterized in accordance with instructions from and under the supervision of a Qualified Person.

Documentation by Qualified Person

- (13) When accepting characterized Dry Soil, the Owner shall ensure that all Dry Soil characterization documentation has been prepared by a Qualified Person.

Laboratory Service Provider Credentials

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

4.6 Incoming Dry Soil Characterization Documentation

Characterized Dry Soil Documentation

- (1) Prior to accepting any incoming Dry Soil at the Site, the Owner shall acquire from each Source Site owner/generator the characterization documentation as required in Conditions 4.6(2) through 4.6(11), as applicable.
 - (2) As a minimum, the Dry Soil characterization documentation shall include the following:
 - a. the results of any Phase 1 ESA and Phase 2 ESA undertaken for the Source Site in accordance with the Ministry's requirements under O. Regulation 153/04; or
 - b. the following sampling and analytical information/results:
 - i. sampling methods and protocols for the required characterization;
 - ii. results from the Slump Test if the Excess Soil has a high moisture content;
 - iii. analytical results confirming that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347;
 - iv. bulk concentrations of Contaminants;
 - v. if the Dry Soil is destined for a Reuse Site, leachate analysis for the Contaminant concentrations to verify compliance with the applicable Leachate Screening Levels;
- as set out in Condition 4.5, as applicable.

Incoming Dry Soil Documentation - Bioremediation

- (3) When accepting characterized Dry Soil for Bioremediation at the Site, the Owner shall only accept Soil that is accompanied by the characterization documentation required in Condition 4.6(2).
- (4) Despite requirements in Condition 4.6(3), depending on the type of the Source Site or the generation location type, the Owner may accept the Dry Soil that has been sampled as follows:
 - a. for an in-situ and ex-situ characterization of the Dry Soil from residential Source Sites:
 - i. a minimum of one (1) sample has been collected for each 500 m³ 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 has been collected for each 300 m³ 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:

- i. a minimum of three (3) samples have been collected if less than 600 m^3 of the Dry Soil is to be excavated;
 - ii. a minimum of one (1) sample has been collected for each 200 m^3 of the Dry Soil for the first $10,000 \text{ m}^3$ of the Dry Soil to be excavated;
 - iii. a minimum of one (1) sample has been collected for each additional 450 m^3 of the Dry Soil after the first $10,000 \text{ m}^3$ of the Dry Soil to be excavated; and
 - iv. at least one (1) sample has been collected for each additional $2,000 \text{ m}^3$ after the first $40,000 \text{ m}^3$ of the Dry Soil to be excavated;
- c. for an ex-situ characterization of the Dry Soil from IC&I Source Sites, as a minimum:
- i. for stockpile volume of less than 220 m^3 , a minimum of 2 samples have been collected;
 - ii. for stockpile volume between 221 m^3 and 430 m^3 , a minimum of 3 samples have been collected;
 - iii. for stockpile volume between 431 m^3 and 670 m^3 , a minimum of 4 samples have been collected;
 - iv. for stockpile volume between 671 m^3 and 950 m^3 , a minimum of 5 samples have been collected;
 - v. for stockpile volume between 951 m^3 and $1,250 \text{ m}^3$, a minimum of 6 samples have been collected;
 - vi. for stockpile volume between $1,251 \text{ m}^3$ and $1,550 \text{ m}^3$, a minimum of 7 samples have been collected;
 - vii. for stockpile volume between $1,551 \text{ m}^3$ and $1,850 \text{ m}^3$, a minimum of 8 samples have been collected;
 - viii. for stockpile volume between $1,851 \text{ m}^3$ and $2,200 \text{ m}^3$, a minimum of 9 samples have been collected;
 - ix. for stockpile volume between $2,201 \text{ m}^3$ and $2,500 \text{ m}^3$, a minimum of 10 samples have been collected;
 - x. for stockpile volume between $2,501 \text{ m}^3$ and $2,900 \text{ m}^3$, a minimum of 11 samples have been collected;
 - xi. for stockpile volume between $2,901 \text{ m}^3$ and $3,300 \text{ m}^3$, a minimum of 12 samples have been collected;
 - xii. for stockpile volume between $3,301 \text{ m}^3$ and $3,700 \text{ m}^3$, a minimum of 13 samples have been collected;
 - xiii. for stockpile volume between $3,701 \text{ m}^3$ and $4,100 \text{ m}^3$, a minimum of 14 samples have been collected;
 - xiv. for stockpile volume between $4,101 \text{ m}^3$ and $4,500 \text{ m}^3$, a minimum of 15 samples have been collected;
 - xv. for stockpile volume between $4,501 \text{ m}^3$ and $5,000 \text{ m}^3$, a minimum of 16 samples have been collected; and
 - xvi. for stockpile volume of greater than $5,000 \text{ m}^3$, a minimum number of samples to be

collected has been calculated in accordance with the following formula: $N = [32 + (\text{volume} - 5000 / 300)]/2$ where "volume" is the actual stockpile volume in m³.

Incoming Dry Soil Documentation - Transfer to a Reuse Site

- (5) When accepting characterized Dry Soil for transfer to a Reuse Site, the Owner shall only accept Soil that is accompanied by the characterization documentation in compliance with the requirements set out in Condition 4.6(2).
- (6) Despite provisions of Condition 4.6(5), when accepting characterized Dry Soil under Condition 4.6(5), the Owner shall only accept the Soil has been characterized in accordance with the requirements set out in O. Regulation 406/19 and the Soil Rules, including being sampled in accordance with subsections 2.(3)15. (In Situ Sampling) or 2.(3)16. (Stockpile Sampling) of Section B of Part I of the Soil Rules and subsection 2.(4) (Requirements for Handling, Storage and Analysis of Samples) of Section B of Part I of the Soil Rules.

Incoming Dry Soil Documentation - Transfer to a Waste Disposal Site

- (7) When accepting characterized Dry Soil for transfer to an approved non-hazardous waste disposal site, the Owner shall only accept the Soil that is accompanied by the characterization documentation to demonstrate that the Soil is a solid non-hazardous waste as set out in Condition 4.5.
- (8) Despite provisions of Condition 4.6(7), when accepting characterized Dry Soil under Condition 4.6(7), the Owner shall only accept the Soil has been characterized to show that is acceptable for receipt at the at its subsequent destination at an approved non-hazardous waste disposal site and as required by the environmental compliance approval for that waste disposal site and as required by that waste disposal site owner.

Incoming Dry Soil Documentation - Transfer to a Site Approved/Permitted by an Appropriate Regulatory Agency of Equivalent Jurisdiction

- (9) When accepting characterized Dry Soil for transfer to a site approved/permited by an appropriate regulatory agency of equivalent jurisdiction, the Owner shall only accept the Soil that is accompanied by the characterization documentation to demonstrate that the Soil is a solid non-hazardous waste as set out in Condition 4.5.
- (10) Despite provisions of Condition 4.6(9), when accepting characterized Dry Soil under Condition 4.6(9), the Owner shall only accept the Soil has been characterized to show that is acceptable for receipt at the at its subsequent destination at a site approved/permited by an appropriate regulatory agency of equivalent jurisdiction and as required by the approval/permit for that site approved/permited by an appropriate regulatory agency of equivalent jurisdiction and that site owner.

Documentation to Show that Dry Soil is Approved for Receipt

- (11) Despite any requirements set out in Conditions 4.4, 4.5, 4.6(1) through 4.6(10), the Owner shall

acquire any applicable documentation to prove that the incoming Dry Soil is a waste type approved for receipt at the Site.

4.7 Incoming Waste with Incomplete Characterization Documentation or without Characterization Documentation

Dry Soil with Incomplete Documentation or without Documentation

- (1) Despite requirements of Condition 4.6(2), provided that the Dry Soil is expected to be a solid non-hazardous waste, the Dry Soil may be received at the Site with incomplete characterization documentation or without the required characterization documentation, if one of the following requirements is complied with:
 - a. the incoming Dry Soil shall be segregated from all other Soils, wastes, reagents and materials, until the complete documentation is promptly provided by the Source Site owner/generator, received by the Owner and deemed acceptable by the Trained Personnel; or
 - b. the incoming Dry Soil shall be segregated from all other Soils, wastes, reagents and materials, until the Soil is characterized at the Site in accordance with this Approval.

Dry Soil - Small Amounts for Bioremediation

- (2) Despite requirements of Conditions 4.6(2) and 4.7(1), for Dry Soil from small-scale residential Source Site projects and destined for the Bioremediation at the Site, provided that the Dry Soil is expected to be a solid non-hazardous waste, the Dry Soil may be received at the Site without accompanying characterization results subject to the following:
 - a. the amount of Dry Soil received from any one Source Site shall not exceed 80 cubic metres or 150 tonnes;
 - b. the total amount of Dry Soil stockpiled further to this sub-condition shall not exceed 800 cubic metres or 1,440 tonnes;
 - c. 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;
 - d. the Dry Soils may be stockpiled separately or in the same pile prior to sampling and testing; and
 - e. the Dry Soil stockpiles may be mixed prior to testing for the purposes of homogenization.
- (3) Despite requirements of Conditions 4.6(2) and 4.7(1), 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:
 - a. 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;
 - b. 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;

- c. Dry Soils shall be stockpiled separately prior to testing; and
- d. if the Contaminants involve only fuels (diesel, gasoline, oil), or mineral oils, or SAR, then a minimum of one (1) sample may be taken for testing.

Dry Soil from Emergency Response Activity

- (4) Despite requirements of Conditions 4.6(2) and 4.7(1), provided that the Dry Soil is generated from an emergency response activity, including a spill cleanup, the Dry Soil may be received at the Site with incomplete characterization documentation or without the required characterization documentation, if upon arrival at the Site it is segregated from all other Soils, wastes, reagents and materials and until it is characterized at the Site in accordance with this Approval.

4.8 Bioremediation and the Demonstration Study

- (1) Within twenty four (24) hours of receipt of characterized Dry Soil or on the next operating business day or within twenty four (24) hours of receipt of characterization results for Dry Soil tested at the Site, the Owner shall process the Dry Soil into the Mix and place in the designated Bioremediation bays.
- (2) The Mix undergoing Bioremediation shall be wetted to maintain the optimal moisture range of 10-25 percent by weight or 20-70 percent moisture holding capacity of the Mix, unless Trained Personnel determines an alternative optimal moisture range required to Bioremediate the Mix and retains written justification for the change from the range required in this Condition, in accordance with the records keeping requirements in Condition 14.0.
- (3) Biopile height shall not exceed 6 m as set out in the supporting documentation listed in the attached Schedule 1.
- (4) Biopile construction activities shall be carried out as proposed in the supporting documentation listed in the attached Schedule 1.
- (5) Only clean water shall be used to add moisture to the Mix undergoing Bioremediation.
- (6) The Mix undergoing Bioremediation in the Biopiles shall be aerated as required to maintain a target oxygen level of 15% to ensure aerobic conditions within the Mix.
- (7) The Mix undergoing Bioremediation shall be maintained at the optimal pH level range of 6-8, unless Trained Personnel determines an alternative optimal pH level required to Bioremediate the Mix and retains written justification for the change from the range required in this Condition, in accordance with the records keeping requirements in Condition 14.0.
- (8) The Demonstration Study shall commence when the first load with Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations is received at the Site for Bioremediation after the date of this Approval but the Owner may continue and finish the mechanically-aerated Biopile Bioremediation of the Dry Soil containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations in-progress at the time

of the issuance of this Approval.

- (9) All new Dry Soil, that contains biodegradable Contaminant(s) in concentrations that can be Bioremediated in accordance with the Bioremediation process parameters approved in this Approval and Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations, received at the Site at the start of the Demonstration Study and until sixty (60) days from the start of the Demonstration Study shall be a part of the Demonstration Study.
- (10) The Demonstration Study shall be designed to evaluate the effectiveness of mechanical aeration in achieving Table 2.1 Excess Soil Standards within the sixty (60)-day period in the Dry Soil containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations Bioremediated in mechanically-aerated Biopiles and shall include a sufficient amount of the Dry Soil under study and use the methods and techniques considered scientifically reliable and valid.
- (11) Upon the first receipt of the Dry Soil suitable for the Demonstration Study, the Owner shall commence the Demonstration Study to Bioremediate the Dry Soil containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations in the mechanically-aerated Biopiles.
- (12) Upon the commencement of the Demonstration Study, the Owner shall notify, in writing, the Director and the District Manager.
- (13) The Demonstration Study shall be conducted for duration required to Bioremedate the Dry Soil received within sixty (60) calendar days and it shall include construction, monitoring and testing of the mechanically-aerated Biopiles.
- (14) The Dry Soils to be treated as a part of the Demonstration Study shall be segregated from all other Dry Soil at the Site and shall be clearly labelled.
- (15) Biopiles used to Bioremediate Dry Soil with Higher Petroleum Hydrocarbons Concentrations shall be kept separate from the Biopiles used to Bioremediate Dry Soil with Other Organic Contaminants Concentrations.
- (16) The incoming Dry Soil shall be characterized as required in Condition 7.0.
- (17) The Processed Soil in the Biopiles that are a part of the Demonstration Study shall be characterized as follows:
 - a. except for the sampling frequency set out in Condition 7.0, the Processed Soil be sampled and tested in accordance with the requirements set out in Condition 7.0;
 - b. the Owner shall sample the Processed Soil at an enhanced sampling frequency that results in the double number of samples that are required under Condition 7.0.
- (18) If during the Demonstration Study, Bioremediation of any batch of the Dry Soil in the

mechanically-aerated Biopiles is deemed to be ineffective in achieving the Table 2.1 Excess Soil Standards within the sixty (60)-day period, the Owner shall,

- a. stop using mechanical aeration;
 - b. separate the failed batch from all other Dry Soil at the Site and transfer it off-Site to an appropriate destination in accordance with the provisions set out in this Approval;
 - c. investigate the cause of the batch failure; and
 - d. if applicable, determine the corrections to the process to prevent future failures.
- (19) Within thirty (30) calendar days of the completion of the Demonstration Study, the Owner shall submit to the Director a report with the findings and conclusions of the Study. The report shall include:
- a. incoming Dry Soil characterization results;
 - b. Biopile(s) construction methods including additions of the Bioaugmentation Compound(s) solution, the Biostimulation Compound(s) and any Amendment Materials;
 - c. Bioremediation process methods, including the frequency of the mechanical aeration;
 - d. Bioremediation process monitoring parameters, methods, and the results;
 - e. Bioremediation process duration;
 - f. Processed Soil characterization results;
 - g. reasons for a failed batch of the Dry Soil in achieving the Table 2.1 Excess Soil Standards within the sixty (60)-day period, if failure occurred; and
 - h. corrections to the mechanically-aerated Bioremediation to correct the causes of the failed batch;
 - i. conclusions with respect to the success of the Demonstration Study and effectiveness of mechanically-aerated Bioremediation in treating the Dry Soil containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations.
- (20) Following the completion of the Demonstration Study and until the results of the Demonstration Study are approved by the Director and provided that the Owner deems the mechanical aeration effective in achieving the Table 2.1 Excess Soil Standards within the sixty (60)-day period, the Dry Soil containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations received at the Site may be,
- a. Bioremediated in the mechanically-aerated Biopiles subject to the Processed Soil testing

requirements set out in Condition 7.0; or

b. transferred from the Site in accordance with this Approval.

- (21) If the results of the Demonstration Study indicate that mechanical aeration is ineffective in achieving the Table 2.1 Excess Soil Standards within the sixty (60)-day period, upon completion of the Demonstration Study, the Owner shall stop using mechanically-aerated Biopiles and shall only transfer all Dry Soils containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations from the Site in accordance with this Approval going forward.
- (22) If the results of the Demonstration Study indicate that mechanical aeration effectively aerates the Biopiles containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations, the Owner may continue to use the mechanically-aerated Biopiles for Bioremediation of these types of Dry Soils, until otherwise prohibited by the Director.

4.9 Mixing, Bulking or Blending of Dry Soils, Including the Processed Soils

- (1) If the Dry Soils that have been confirmed to meet the same applicable Bioremediation requirements as set out in this Approval, the Soils may be mixed, bulked or blended together and processed together.
- (2) The Dry Soils, including the Processed Soils, may be mixed, bulked or blended with Rock to meet the customer's specifications if done in accordance with O. Regulation 406/19 including compliance with the definition of Excess Soil.
- (3) At no time, shall any Dry Soil, including the Processed Soil, intended for deposition at a Reuse Site, be mixed or blended with any waste that is subject to the requirements under section 20.2 of Part II.1 of the EPA.
- (4) The Owner shall not bulk, mix or blend loads of Dry Soils from different Source Sites or bulk, mix or blend the Dry Soils, including the Processed Soils, of different quality, other waste or materials if the purpose of bulking, mixing or blending is to reduce or dilute concentrations of Contaminant(s) present in the Dry Soil.
- (5) The Owner shall not bulk, mix or blend Dry Soils, including the Processed Soils, unless characterization confirms compliance with Similar Soils requirements set out in Conditions 4.9(6), through 4.9(7).
- (6) When the Dry Soil, including the Processed Soil, is destined for a Reuse Site, the following rules apply to bulking, mixing or blending of Similar Soils:
- a. the Owner shall ensure that all Soil to be bulked, mixed or blended complies with the Excess Soil Criteria for the same proposed Reuse Site; and
 - b. despite provisions of Condition 4.9(6)a., when bulking, mixing or blending Soil loads containing Contaminant(s) concentrations exceeding Table 2.1 Excess Soil Standards, the

Owner may only bulk, mix or blend Soil in compliance with the following:

- i. the Owner may only bulk, mix or blend Soil loads that are characterized to have the Contaminant(s) concentrations within the same table of the Excess Soil Standards and in the same following Contaminant group(s):
 - A. Group 1: petroleum hydrocarbon fractions: F1 (C6-C10), F2 (>C10-C16), F3 (>C16-C34), and F4 (>C34) and Benzene, Toluene, Ethyl Benzene and Xylene;
 - B. Group 2: Organic Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Polycyclic Aromatic Hydrocarbons (PAHs), etc.;
 - C. Group 3: heavy metals and hydride-forming metals (antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, uranium, vanadium and zinc); and
 - D. Group 4: Electrical Conductivity (EC) and Sodium Adsorption Ratio (SAR).

(7) Notwithstanding provisions of Condition 4.9(6), the Dry Soils, including the Processed Soil, destined for deposition at a Reuse Site may only be mixed, bulked or blended if this activity is done in accordance with O. Regulation 406/19.

(8) When the Dry Soil is destined for Bioremediation at the Site, the following rules apply to bulking, mixing or blending of Similar Soils:

- a. when bulking, mixing or blending Soil loads containing Contaminant(s) concentrations exceeding Table 2.1 Excess Soil Standards, the Owner may only bulk, mix or blend Soil in accordance with the following:
 - i. Soils may be only bulked, mixed or blended together if containing biodegradable Contaminants in concentrations that can be Bioremediated in accordance with the Bioremediation process parameters approved in this Approval and in the Air/Noise Approval;
 - ii. Soils may be only bulked, mixed or blended together if containing Contaminant(s) that are listed in Group 1 as described in Condition 4.9(6)b.i.A. and Contaminant(s) from Group 2 as described in Condition 4.9(6)b.i.B. that can be Bioremediated in accordance with the Bioremediation process parameters approved under this Approval and in the Air/Noise Approval; and
 - iii. Soils may be only bulked, mixed or blended together if containing Contaminant(s) from Group 2, Group 3 and Group 4 as described in Conditions 4.9(6)b.i.B., 4.9(6)b.i.C. and 4.9(6)b.i.D. that cannot be aerobically bioremediated, but do not exceed the Excess Soil Criteria for the proposed reuse and are characterized to have the Contaminant(s) concentrations within the same table of the Excess Soil Standards and in the same

Contaminant group(s).

- (9) When the Dry Soil, including the Processed Soil, is destined for a waste disposal site for further processing other than aerobic bioremediation, the Owner shall ensure that all Soil loads containing Contaminant(s) concentrations exceeding Table 2.1 Excess Soil Standards to be bulked, mixed or blended are in concentrations that can be processed as approved in the environmental compliance approval for that waste disposal site and as required by that waste disposal site owner.
- (10) When the Dry Soil, including the Processed Soil, is destined for a waste disposal site for Final Disposal, the Owner shall ensure that all Soils to be bulked, mixed or blended comply with the quality criteria required by the environmental compliance approval for that waste disposal site and as required by that waste disposal site owner.
- (11) When the Dry Soil, including the Processed Soil, is destined for a site approved/permitted by an appropriate regulatory agency of equivalent jurisdiction, all Soils to be bulked, mixed or blended shall comply with the applicable quality criteria and restrictions required by the said regulatory agency.

4.10 Transfer of Dry Soil Without any Processing

- (1) The Dry Soil transfer encompasses the following waste management activities:
 - a. weighing all Dry Soil intended for transfer to a Reuse Site or a waste disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction;
 - b. incoming and outgoing truck loads and recording the results;
 - c. receipt;
 - d. temporary storage;
 - e. screening, as required;
 - f. sampling and testing in accordance with the requirements set out in this Approval;
 - g. mixing with Similar Soils; and
 - h. transfer off-Site.
- (2) The Dry Soil intended for transfer off-Site shall be stored in a segregated area within the confines of the Buildings.
- (3) Dry Soil intended for transfer shall be segregated from the Dry Soil destined for Bioremediation at the Site and/or the Processed Soil.
- (4) The Dry Soil intended for transfer off-Site shall be shipped from the Site only to a Reuse Site, a Ministry-approved waste disposal site or other site approved to accept such waste by an appropriate government agency of equivalent jurisdiction.
- (5) The Dry Soil intended for transfer to a waste disposal site shall not exceed the criteria set out in the environmental compliance approval issued by the Ministry for the receiving waste disposal site or any other site approved to accept such waste by an appropriate government agency of equivalent

jurisdiction.

- (6) Transfer of the Dry Soil to a Reuse Site shall be done in accordance with this Approval and O. Regulation 406/19.

4.11 Storage

Storage Amounts

- (1) The maximum amount of the Dry Soil in storage, the Mix in Bioremediation, the Processed Soil and the Rejected Waste, approved to be stored in the Building shall not exceed 27,638 tonnes, at any one time.
- (2) The maximum amount of the Tested Soil stored in a Temporary Building storage area, as shown in the supporting documentation listed in the attached Schedule 1, shall not exceed 30,000 tonnes.
- (3) The height of the Biopiles and all other Dry Soil stockpiles in the Building shall not exceed 6 m and the height of the Tested Soil stockpiles in the Temporary Building shall not exceed 12 m, as set out in the supporting documentation listed in the attached Schedule 1.
- (4) The maximum storage amount of Residual Waste approved to be stored at the Site shall not exceed 80 tonnes, at any one time.
- (5) The maximum amount of the Amendment Material(s) approved to be stored at the Site shall not exceed 10 tonnes at any one time.
- (6) The maximum storage amount of the liquid Bioaugmentation Compound(s) solution shall not exceed 4,000 litres at any one time.
- (7) In the event that the Dry Soil cannot be processed or transferred from the Site or the Processed Soil cannot be removed from the Site in accordance with this Approval and the Site is at its approved storage capacity, the Owner shall cease accepting additional Dry Soil until additional receipt results in compliance with the waste storage limitations set out in this Approval.

Storage Duration - Dry Soil Destined for Transfer

- (8) The maximum storage duration of the Dry Soil destined for transfer from the Site shall not exceed ninety (90) days from its receipt.

Storage Duration - Residual Waste

- (9) The maximum storage duration of the Residual Waste destined for Final Disposal off-Site shall not exceed sixty (60) days from the time of its generation.

Storage Duration - Rejected Waste

- (10) The Rejected Waste shall be removed from the Site within (4) business days of its receipt or receipt of the laboratory report from the analysis of the Dry Soil and/or the Processed Soil deemed as a Rejected Waste, as applicable, or as acceptable to the District Manager.

Storage Facility

- (11) All storage of the Dry Soil, the Rejected Waste, the Processed Soil, the Tested Soil, the Bioremediation Materials shall be carried out within the confines of the Building and the Temporary Building as set out in supporting documentation included in the attached Schedule 1 and as required below:
- a. The Dry Soil storage stockpiles and the Biopiles shall be contained within the dedicated bunkers within the confines of the Building and shall not exceed 6 metres in height as set out in the supporting documentation listed in the attached Schedule 1.
 - b. The Tested Soil stockpiles shall be contained within the confines of the Temporary Building and shall not exceed 12 metres in height as set out in the supporting documentation listed in the attached Schedule 1.
 - c. The incoming the Dry Soil received at the Site shall be segregated and stored within the confines of the Building, until it is removed from the storage location for transfer off-Site or to the processing areas of the Site.
 - d. For the Dry Soil that requires characterization at the Site, the Owner shall ensure that Dry Soil is kept segregated from all other waste and Dry Soils from different Source Sites until the testing at the Site is completed and the Dry Soil is ready for transfer into the Bioremediation, mixing, blending or bulking at the Site or transfer off-Site.
 - e. All wastes and chemicals shall be stored at the Site in compliance with the requirements set out in the Ministry's document entitled "*Guidelines for Environmental Protection Measures at Chemical and Waste Storage Facilities*" dated May 2007, as amended.
 - f. The liquid Bioaugmentation Compound(s) solution required for the Bioremediation at the Site shall be stored in two (2) 2,000-Litre tote tanks located within the confines of the Building.
 - g. The Amendment Materials required for the Bioremediation at the Site shall be stored in two (2)-14-yard roll-off bins located within the confines of the Building as shown in the supporting documentation listed in the attached Schedule 1.

4.12 Unacceptable/Rejected Waste

- (1) Any Dry Soil characterized at the Site that is found to be unacceptable for Bioremediation but is acceptable for receipt and transfer, it shall be transferred from the Site in accordance with the

requirements of this Approval.

- (2) Any waste, including Excess Soil, not approved under this Approval that is inadvertently accepted at the Site or any Dry Soil characterized at the Site that is found to be unacceptable for receipt at the Site shall be deemed to be a Rejected Waste.
- (3) In the event that a Rejected Waste is inadvertently accepted at the Site, the Owner shall ensure that the Rejected Waste is stored indoors in the way that ensures isolation from other wastes and materials.
- (4) The Rejected Waste shall be removed from the Site within (4) business days of its receipt or receipt of the laboratory report from the analysis of the Dry Soil deemed as the Rejected Waste, as applicable, or as acceptable to the District Manager.
- (5) In the event that the Rejected Waste is inadvertently accepted at the Site, the Owner shall keep a record in accordance with the requirements set out in Condition 14.9, below, and notify the District Manager in accordance with the requirements set out in Condition 15.0, below.
- (6) Notwithstanding provisions of Conditions 4.12(1) through 4.12(5) above, the Owner shall ensure that all Rejected Waste at the Site is managed and disposed of in accordance with the EPA and Regulation 347.

4.13 Residual Waste Handling and Disposal

- (1) The Owner shall ensure that at all times, the solid Residual Waste
 - a. is stored in a designated area of the tipping floor of the Building and/or in a roll-off bin stored within the confines of the Building; and
 - b. is segregated from all other waste, Soils and reagents;
 - c. is stored in accordance with the supporting documentation listed in the attached Schedule 1.
- (2) The Owner shall ensure that all Residual Waste generated at the Site are managed and disposed of in accordance with the EPA and Regulation 347.

4.14 Prohibitions

- (1) Burning of any wastes is prohibited at the Site.
- (2) Scavenging of any wastes is prohibited at the Site.
- (3) No outdoor storage of any wastes or materials is permitted at any time, except as approved in this Approval.

4.15 Cross-Contamination Prevention

- (1) The Owner shall ensure that the incoming Dry Soil and the equipment used in handling of the incoming Dry Soil are kept separate and do not come in contact with the Processed Soil and Tested Soil unless the equipment has been cleaned first, as required, to prevent cross-contamination.
- (2) The Soil handling equipment cleaning shall be as proposed in the supporting documentation in the attached Schedule 1.

4.16 Wastewater, Including Liquid Residual Waste, Management

- (1) The Owner shall ensure that all wastewater resulting from waste handling activities at the Site is contained and is managed in accordance with the requirements set out in any environmental compliance approvals issued for the activities mentioned in Section 53 of the OWRA and any other applicable legislation.

4.17 Ventilation in the Building and the Temporary Building

- (1) The Trained Personnel shall control the opening and closing of all doors within the Building and the Temporary Building and adjust the activities inside the Building and the Temporary Building to prevent:
 - a. migration of the fugitive odour and dust emissions from the Building and the Temporary Building to any off-Site location; or
 - b. an occurrence of an Adverse Effect and/or complaints from the public being affected by the said migration of the fugitive odour and dust emissions from the Building and the Temporary Building.
- (2) The Owner shall maintain the air exchanges in the Building as proposed in the supporting documentation listed in the attached Schedule 1.
- (3) Despite provisions of Conditions 4.17(1) and 4.17(2), the Owner shall implement the BMPP as defined in this Approval.
- (4) Should there be, confirmed by the District Manager, any public complaints resulting from the fugitive odour and dust emissions from the Building and the Temporary Building, the Owner shall develop and submit to the District Manager a plan prepared by a Professional Engineer, as directed or agreed to by the District Manager, for performing a ventilation system and abatement measures assessment to abate the fugitive emissions. The Plan shall include but not be limited to an option for a negative pressure inside the Building and/or the Temporary Building and shall identify the ideal methodology for achieving and monitoring this negative pressure.
- (5) For the negative pressure assessment, as a minimum the Plan shall include the following:
 - a. drawings showing:

- i. layout of the Buildings;
- ii. identification of enclosures, if required; and
- iii. proposed locations for the pressure monitoring sensors for each enclosure;
- b. accuracy of the proposed monitoring instruments;
- c. identification of target negative pressure and negative air balance inside the enclosure(s) and/or Buildings;
- d. instrument calibration schedule;
- e. data collection and reporting frequency;
- f. alarm levels and triggers;
- g. consideration of remedial actions if an alarm is triggered;
- h. an evaluation of the negative pressure and air balance inside the Buildings;
- i. the monitoring period duration;
- j. the proposal for interlocking of the bay doors within the Buildings with the respective fans and the negative pressure control system; and
- k. reporting, including an analysis of the results and recommendations.

- (6) The Owner shall finalize the Plan from Conditions 4.17(4) and 4.17(5) in consultation with the District Manager and as directed by the District Manager shall submit an application for amendment to this Approval for the Site design and operations changes that are subject to the environmental compliance approval requirements under section 20.2 of Part II.1 of the EPA.

5.0 EQUIPMENT MAINTENANCE and SITE INSPECTIONS

5.1 Inspections

- (1) The Owner shall maintain at the Site a comprehensive written inspection program which includes procedures for inspections of all aspects of the Site's operations including the following:
- a. Dry Soil, Processed Soil and any other waste or materials loading/unloading/storage/handling areas;
 - b. condition of all major pieces of the Site's equipment;
 - c. condition of all instruments for monitoring required under this Approval;
 - d. security fence and property line;
 - e. presence of excessive fugitive dust emissions from the operation of the Site;
 - f. presence of off-Site odours; and
 - g. presence of the on and off-Site litter.
- (2) The inspection program shall be up-dated, as required, shall be retained at the Site and be made available for inspection by a Provincial Officer, upon request.
- (3) The inspections required in Condition 5.1(1) shall be undertaken daily by Trained Personnel in accordance with the inspection program to ensure that all Site's equipment and facilities at the Site are maintained in good working order at all times and that no off-Site impacts are occurring. Any deficiencies detected during these regular inspections must be promptly corrected.

5.2 Spare Parts

- (1) The Owner shall prepare a list of critical spare parts and update this list annually or more frequently, if necessary, to ensure that this list is maintained up-to-date. The list shall be retained at the Site and be made available for inspection by a Provincial Officer, upon request.
- (2) The Owner shall ensure that the critical spare parts are available at the Site at all times or be immediately available from an off-Site supplier.

5.3 Maintenance

- (1) The Owner shall ensure that the Site's equipment is properly operated and maintained at all times.
- (2) The Owner shall prepare, not later than three (3) months after the date of this Approval, and update, as necessary, a written or electronic document outlining the operating procedures and a maintenance program for the equipment, including routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the equipment suppliers.
- (3) The Owner shall implement the recommendations of the document referred to in Condition 5.3(2), above.
- (4) The Owner shall develop and implement a preventative maintenance program for all on-Site equipment associated with the processing and managing of wastes and control of fugitive odour and dust emissions.
- (5) The preventative maintenance program shall be maintained up-to-date, be retained at the Site and be available for inspection by a Provincial Officer, upon request.

6.0 PROCESS MONITORING

6.1 Bioremediation Process Monitoring

- (1) During the normal operating hours, the Owner shall monitor the following Bioremediation process parameters in the Biopiles in accordance with the protocol set out in the supporting documentation listed in the attached Schedule 1:
 - a. temperature;
 - b. oxygen level;
 - c. moisture level;
 - d. pH;
 - e. carbon dioxide level; and
 - f. total residual petroleum hydrocarbons.
- (2) The readings or the samples shall be taken, as a minimum, at five (5) locations representing the full depth profile of the Biopile, starting at the location one (1) metre from the surface and including

locations in the middle and bottom of the Biopile.

- (3) The monitoring shall be carried out on a daily basis, unless Trained Personnel determines an alternative monitoring frequency and retains written justification for the change as part of the monitoring records required by Condition 14.0, below.
- (4) Should any measured oxygen concentration within the Biopile fall below 15%, the Biopile shall be re-constructed to aerate the Mix or the Dry Soil shall be moved into an area dedicated for Dry Soil for transfer.
- (5) Within thirty (30) days from the date of this Approval, the Owner shall submit to the Director, a Plan for the Bioremediation process monitoring to be carried out. The Plan shall include the parameters to be monitored, including the parameters listed in Condition 6.1(1), the frequency of the measurements taken or samples taken, the locations, the depth, the instrumentation to be used, the sample handling procedures, the laboratory methods and any procedures associated with the installation of the monitoring probes within the Biopiles.
- (6) If carrying out a Demonstration Study for Bioremediation of Other Organic Contaminants Concentrations, in addition to the parameters listed in Condition 6.1(1) the Owner shall monitor the residual Other Organic Contaminants Concentrations.

7.0 REQUIREMENT to CHARACTERIZE at the SITE

- (1) The Owner shall maintain a Quality Assurance/Quality Control (QA/QC) program for sampling and analysis of wastes, as required by this Approval, and shall make the results of the QA/QC program, including all analyses carried out by an accredited laboratory service provider, available for inspection upon request by the District Manager, the Director and any Provincial Officer.

7.1 Characterization of the Dry Soil, including the Processed Soil

- (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 sample and characterize the incoming Dry Soil at the Site in accordance with this Approval.
- (2) The Owner shall sample and characterize the Processed Soil for each Reuse Site and in accordance with the requirements of O. Regulation 406/19 and the Soil Rules.
- (3) Notwithstanding provisions of Conditions 7.1(1) and 7.1(2), the Owner also shall comply with the general requirements set out in Condition 7.2.

7.2 General Requirements for Characterization

- (1) Unless the incoming Dry Soil have been already adequately characterized at the Source Site or at the spill site as required by this Approval, upon its receipt at the Site, the Owner shall characterize the Dry Soil to determine its nature, constituents and characteristics.
- (2) The Owner shall sample the incoming Dry Soil,
 - a. within twenty four (24) hours from its receipt, or on the next business day, whichever comes first; or
 - b. when receiving Dry Soil from the same Source Site over several days, within twenty four (24) hours from last load receipt, or on the next business day, whichever comes first.
- (3) The Owner shall sample the Processed Soil within twenty four (24) hours from completion of Bioremediation or on the next business day, whichever comes first.
- (4) For sampling and testing of the incoming Dry Soil or the Processed Soil as required by Conditions 7.3 through 7.7, the Owner shall use the sampling procedures, methods, equipment and techniques, and the analytical methods and requirements set out in Conditions 4.5 and 4.6, as applicable.

7.3 Testing of Dry Soil to be Transferred to a Waste Disposal Site

- (1) When receiving uncharacterized Dry Soil destined for transfer to an approved non-hazardous waste disposal site, the Owner shall characterize the Dry Soil at the Site as follows:
 - a. the Slump, if the Excess Soil has a high moisture content;
 - b. the Contaminants and the parameters that require physical and chemical analysis, including TCLP, to confirm that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347;
 - c. any other results required to demonstrate that the Dry Soil is suitable for acceptance at the Site; and
 - d. any other results required 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 and 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.

7.4 Testing of Dry Soil to be Transferred to a Site Approved/Permitted by an Appropriate Regulatory Agency of Equivalent Jurisdiction

- (1) When accepting uncharacterized Dry Soil destined for transfer to a site approved/permitted by an appropriate regulatory agency of equivalent jurisdiction, the Owner shall characterize the Dry Soil at the Site as follows:

- a. the Slump, if the Excess Soil has a high moisture content;
- b. the Contaminants and the parameters that require physical and chemical analysis, including TCLP, to confirm that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347;
- c. any other results required to demonstrate that the Dry Soil is suitable for acceptance at the Site; and
- d. any other results required to demonstrate that the Dry Soil is suitable for receipt at the at its subsequent destination at a site approved/permited by an appropriate regulatory agency of equivalent jurisdiction and as required by the approval/permit for that site approved/permited by an appropriate regulatory agency of equivalent jurisdiction and that site owner.

7.5 Testing of Incoming Dry Soil for Bioremediation

- (1) When receiving uncharacterized Dry Soil destined for Bioremediation at the Site, the Owner shall characterize the Dry Soil at the Site as follows:
 - a. the Slump, if the Excess Soil has a high moisture content;
 - b. the Contaminants and the parameters that require physical and chemical analysis, including TCLP, to confirm that the Dry Soil does not trigger any criteria from the hazardous waste definition from Regulation 347;
 - c. bulk concentrations of the Contaminants; and
 - d. any other results required to demonstrate that the Dry Soil is suitable for acceptance at the Site to be Bioremediated at the Site.

7.6 Testing of the Processed Soil

- (1) Prior to its shipment from the Site to a Reuse Site, the Owner shall characterize the Processed Soil as required by O. Regulation 406/19 and the Soil Rules and as instructed by the Reuse Site owner.
- (2) Prior to its shipment from the Site to a waste disposal site, the Owner shall characterize the Processed Soil 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 and 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.

- (3) Prior to its shipment from the Site to a to a site approved/permitted by an appropriate regulatory agency of equivalent jurisdiction, the Owner shall characterize the Processed Soil to demonstrate that the Dry Soil is suitable for receipt at the at its subsequent destination at a site approved/permitted by an appropriate regulatory agency of equivalent jurisdiction and as required by the approval/permit for that site approved/permitted by an appropriate regulatory agency of equivalent jurisdiction and that site owner.

8.0 TESTED SOIL QUALITY CRITERIA, SOIL DISPOSAL and RE-USE REQUIREMENTS

8.1 Tested Soil Quality Criteria

- (1) The Tested Soil destined for deposition at a Reuse Site 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/permitted to accept such waste by an appropriate government agency of equivalent jurisdiction.

8.2 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.

8.3 Dry Soil Destined to 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 and criteria set out in the environmental compliance approval issued by the Ministry for the waste disposal site or the other site approved/permitted to accept such waste by an appropriate government agency of equivalent jurisdiction.

8.4 Disposal of Non-Reusable Soil-like Waste

- (1) Except for the Dry Soil, including 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 Dry Soil that contains more Rock than allowed in Excess Soil as defined, and which does not meet the definition of an Inert Fill;
 - c. all Dry Soil that contains more than an insignificant amount of incidental construction and/or demolition waste or other non-hazardous waste debris; and
 - d. all Dry 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.

9.0 HOUSEKEEPING and NUISANCE IMPACT CONTROL

9.1 Dust

- (1) The Owner shall implement all necessary prevention measures to eliminate fugitive dust emissions from the Site.
- (2) Only clean water shall be used to control dust at the Site.
- (3) All dust prevention and mitigation practices employed at the Site shall be included in the Annual Report as required by Condition 14.9.

9.2 Trucks - Mud Track-Out

- (1) The Owner shall implement all necessary mud track-out prevention measures to eliminate the mud track-out from the trucks related to the operation of the Site on the municipal roadways in the vicinity of the Site.
- (2) The Owner shall ensure that the outbound driveway is free of mud or dust and that the trucks leaving the Site do not drag mud, Soil or any waste onto the municipal roadways.
- (3) If at any time, the Ministry staff verifies that the mud track-out from the trucks arriving at and departing from the Site is occurring and the Owner receives a written notice from the District Manager, the Owner shall take immediate additional steps to eliminate the mud track-out.
- (4) All mud track-out prevention and mitigation practices employed at the Site shall be included in the Annual Report as required by Condition 14.9.

9.3 Road Dust

- (1) If at any time, the Owner receives a written notice from the District Manager that mud track-out from the Site is causing significant dust on the municipal roads in the vicinity of the Site, the Owner shall take immediate steps to mitigate these dust impacts.
- (2) If an immediate step from Condition 9.3(1) is using road sweeping equipment, the Owner shall use the wet sweeping equipment that is designed to ensure that no dust is emitted from the equipment to the atmosphere and that no Adverse Effect is caused by the operation of the equipment on the receptors in

the vicinity of the Site.

- (3) During the operating hours, the Owner shall ensure that regular municipal roads cleaning in the areas affected by mud track-out and the the fugitive dust related to the activities at the Site, including the mud/dust from the incoming Dry Soil trucks, is carried out.
- (4) Should the Owner become aware that a truck delivering Dry Soil to the Site has leaked waste and/or wastewater and/or deposited mud on the municipal roadways, the Owner shall immediately report the violation to the owner of the truck(s) and keep records to be provided to the District Manager, upon request.

9.4 Vehicles - Covers

- (1) All Dry Soil vehicles arriving and departing from the Site shall be equipped with appropriate means of minimizing dust emissions from the Dry Soil transport. As a minimum, the vehicles shall be covered with a properly functional tarp.
- (2) The Owner shall inform all vehicle drivers using the Site of the vehicle covering requirements.
- (3) The Owner shall ensure that the Trained Personnel inspects the incoming and outgoing vehicles for compliance with the vehicle covering requirements.
- (4) Vehicle drivers violating the Site's covering requirements will receive a warning and will be suspended from using the Site for all subsequent violations.
- (5) The Owner shall keep records of the violations, warnings and suspensions issued to the drivers and suspensions.

9.5 Vehicles - Freeboard

- (1) All Dry Soil vehicles arriving at the Site should be filled to have an appropriate freeboard to minimize the risk of Dry Soil spilling during transport.
- (2) The Owner shall ensure that the Trained Personnel inspects the incoming and outgoing vehicles for compliance with the vehicle covering requirements.
- (3) The Owner shall inform all vehicle drivers arriving at the Site of the freeboard requirement.
- (4) Vehicle drivers violating the Site's freeboard requirements will receive a warning regarding the freeboard requirements and the Owner shall provide the vehicle filling instructions to the personnel responsible for vehicle loading at the Source Site.
- (5) The Owner shall keep records of the freeboard violations and warnings issued to the drivers.
- (6) All Dry Soil vehicles departing from the Site shall be filled to have an appropriate freeboard to

minimize the risk of Soil spilling during transport.

9.6 Traffic

- (1) The Owner shall ensure that there is no queuing or parking of the Dry Soil trucks that are waiting to enter the Site on any roadway that is not a distinct part of the Site.
- (2) The Owner shall ensure that a Trained Personnel is directing traffic on the municipal roadway in front of the Site during the operating hours to ensure that there is no Dry Soil trucks queuing on the municipal roadway and that the Dry Soil trucks that cannot enter the Site immediately upon arrival in front of the Site are directed away to prevent queuing on the municipal roadway.
- (3) Only haulers approved by the Ministry or registered on the EASR, as required, shall be used to transport any Dry Soil or waste from the Site.

9.7 Odour

- (1) The Owner shall implement all necessary prevention measures to eliminate fugitive odour emissions from the Site.
- (2) All odour prevention and mitigation practices employed at the Site shall be included in the Annual Report as required by Condition 14.9.

9.8 Litter

- (1) The Owner shall pick up the litter at the Site, as required to prevent its escape from the Site.

9.9 Vermin and Vectors

- (1) The Owner shall implement necessary housekeeping procedures to eliminate potential sources of attraction for vermin and vectors.

10.0 COMPLAINT MANAGEMENT

- (1) A designated representative of the Owner shall be available to receive public complaints caused by the operations at the Site twenty-four (24) hours per day, seven (7) days per week.
- (2) If at any time, the Owner receives any environmental complaints from the public regarding the operation of the Site, the Owner shall respond to these complaints according to the following procedures:
 - a. Step 1: Receipt of Complaint - The Owner shall record each complaint in a computerized tracking system. The information recorded shall include the following:

- i. the name, address and the telephone number (or contact information) of the complainant, if known;
 - ii. the date and time of the complaint; and
 - iii. details of the complaint, including the description and duration of the incident.
- b. Step 2: Notification of Complaint - After the complaint has been received by the Owner and recorded in the tracking system, the Owner shall, immediately notify, either the District Manager by phone during office hours or the Ministry's Spills Action Centre at 1-800-268-6060 after office hours.
- c. Step 3: Investigation of Complaint - The Owner shall immediately initiate investigation of the complaint. The investigation shall include, as a minimum, the following:
 - i. determination of the activities undertaken in the Site at the time of the complaint;
 - ii. general meteorological conditions including, but not limited to the ambient temperature, approximate wind speed and its direction, sunny versus cloudy, inversion versus clear and windy, etc. at the time of the complaint;
 - iii. location of the person who submitted the complaint, if known, at the time of the incident; and
 - iv. determination if the complaint is attributed to activities being undertaken at the Site and if so, determination of all the possible cause(s) of the complaint;
- d. Step 4: Corrective Action - The Owner shall determine the remedial action(s) to address the cause(s) of the complaint and implement the remedial action(s) to eliminate the cause(s) of the complaint, as soon as practicably possible, and to prevent a similar occurrence in the future;
- e. Step 5: Written Response - The Owner shall forward a formal reply to the complainant, if known, and to the District Manager within one (1) week after the receipt of the complaint. The response shall include the results of the investigation of the complaint, the action(s) taken or planned to be taken to address the cause(s) of the complaint, and if follow-up response would be provided.
- f. Step 6: Recording - All of the information collected and actions taken must be recorded in the tracking system.

11.0 OPERATIONS MANUAL and PERSONNEL TRAINING

11.1 Operations Manual

- (1) The Owner shall maintain an Operations Manual for the Site. As a minimum, the Operations Manual must contain the following:
 - a. outline of the responsibilities of the Site personnel;

- b. personnel training protocols;
 - c. Site operating procedures including but not limited to,
 - i. the Dry Soil and the reagents and amendments receiving, unloading/loading, screening, handling and storage procedures and the Bioremediation processing procedures; and
 - ii. the Dry Soil and the Processed Soil mixing, bulking and blending procedures;
 - d. sampling, testing, monitoring and recording procedures as required by this Approval;
 - e. required data recording procedures;
 - f. emergency response procedures including an outline of the responsibilities of Site personnel including roles and responsibilities during emergency situations, exit locations and evacuation routing, and locations of relevant equipment available for handling of the emergency situations;
 - g. the contingency plans for the Site;
 - h. equipment and Site inspection procedures, as required by this Approval;
 - i. nuisance impact control and housekeeping procedures, as required by this Approval; and
 - j. the procedures for handling and recording complaints as described in this Approval.
- (2) A copy of this Operations Manual shall be kept at the Site, must be accessible to Site personnel at all times and must be updated, as required.

11.2 Personnel Training

- (1) All operators of the Site shall be trained with respect to the following as per the specific job requirements of each individual operator:
- a. relevant air, noise, wastewater and waste management legislation, regulations and guidelines;
 - b. major environmental concerns pertaining to the wastes to be handled at the Site;
 - c. occupational health and safety concerns pertaining to the processes and wastes to be handled at the Site;
 - d. management procedures including the use and operation of equipment for the processes and wastes to be handled at the Site;
 - e. dust management procedures in accordance with the BMPP for the Site;
 - f. odour management procedures;
 - g. records keeping procedures;
 - h. contingency plan and emergency response procedures;
 - i. specific written procedures for the control of adverse effects from the Site;
 - j. specific written procedures for refusal of unacceptable incoming Waste loads; and

- k. the requirements of this Approval.
- (2) The training of the operators of the Site shall also include the procedures contained in the Operations Manual.
- (3) The training of the operators of the Site shall be undertaken:
 - a. upon commencing employment at the Site in a particular position; and
 - b. whenever procedures are updated or during the planned three (3)-year refresher training.

12.0 CONTINGENCY MEASURES and EMERGENCY SITUATION RESPONSE PLAN

12.1 Emergency Response and Contingency Plan

- (1) The Owner shall maintain the existing and update as necessary, the Emergency Response and Contingency Plan for the Site. The Emergency Response and Contingency Plan shall be revised, as required, in consultation with the District Manager. The Owner shall also invite the local municipality and the local fire service authority to provide input and/or comments into revisions of the Emergency Response and Contingency Plan. The Emergency Response and Contingency Plan, as a minimum must include the following:
 - a. emergency response procedures to be undertaken in the event of a spill, process upset, power failure, fire or any other emergency situation, including specific clean up methods for wastes expected to be generated from the emergency situation;
 - b. a list of equipment and clean up materials available for dealing with the emergency situations and their locations on the Site plan;
 - c. notification protocol with names and telephone numbers of persons to be contacted, including persons responsible for the Site, the Ministry's District Office and Spills Action Centre, the local fire service authority, the local Municipality, the local Medical Officer of Health, and the Ministry of Labour, and the names and telephone numbers of waste management companies available for emergency response;
 - d. procedures and actions to be taken should the incoming Dry Soil not meet the quality criteria set out in this Approval;
 - e. procedures and actions to be taken should the outgoing Dry Soil or the Processed Soil not meet the quality criteria set out in this Approval;
 - f. procedures and actions to be taken should the outgoing Residual Waste or the Tested Soil not meet the required quality criteria;
 - g. procedures and actions to be taken should the waste management activities at the Site result in

occurrence of complaints;

- h. procedures and actions to be taken should the occurrence of complaints require the Owner to implement additional environmental impact control measures; and
- i. procedures and actions to be taken should the occurrence of complaints require the Owner to suspend the waste handling activities at the Site.

- (2) An up-to-date version of the Emergency Response and Contingency Plan shall be kept at the Site, in a central location known and available to all Site personnel. A copy shall be made available to Ministry staff upon request and to the local municipality and the local fire service authority, if requested.
- (3) The Emergency Response and Contingency Plan shall be reviewed on an annual basis and updated, if necessary. The revised version of the Emergency Response and Contingency Plan shall be provided to the District Manager and to the local municipality and the local fire service authority, if requested.

13.0 EMERGENCY SITUATIONS RESPONSE and REPORTING

- (1) The Owner shall immediately take all necessary measures, as set out in the Emergency Response and Contingency Plan, to handle the emergency situations occurring at the Site.
- (2) The Owner shall ensure that the equipment and materials outlined in the Emergency Response and Contingency Plan are immediately available at the Site at all times and are in a good state of repair and fully operational.
- (3) The Owner shall ensure that all Site employees are fully trained in the use of the equipment and materials outlined in the Emergency Response and Contingency Plan, and in the procedures to be employed in the event of an emergency.
- (4) All Spills shall be immediately reported to the **Ministry's Spills Action Centre at 1-800-268-6060** and to the local municipality and shall be recorded in the log book as to the nature and cause of the Spill, and the action taken for clean-up, correction and prevention of similar future occurrences.
- (5) Should a Spill occur at the Site, in addition to fulfilling the requirements from the EPA, the Owner shall submit to the District Manager a written report within three (3) calendar days outlining the nature of the Spill, remedial measure taken and the measures taken to prevent future occurrences at the Site.

14.0 RECORDS KEEPING and RETENTION

- (1) The Owner shall retain all records required by this Approval for a minimum of five (5) years.
- (2) All records generated as required by this Approval shall include a date of record and the name and signature of the person completing the report.

(3) All measurements shall be recorded in consistent metric units of measurement.

14.1 Daily Activities

- (1) The Owner shall maintain a written or digital record of daily activities undertaken at the Site. All measurements shall be recorded in consistent metric units of measurement. The record shall include, as a minimum, the following information:
- a. date of receipt and the name of the Dry Soil generator, Source Site location, land/use of the Source Site, and the quantity (tonnage and number of trucks) of the Dry Soil received;
 - b. results of the required characterization of the incoming Dry Soil;
 - c. date, quantity, type, quality (including the analytical data from any compliance testing) and the destination of the Dry Soil destined for transfer off-Site;
 - d. date, quantity, type, quality (including the analytical data from any compliance testing) and the destination of the Dry Soil destined for Bioremediation;
 - e. the Dry Soil processing activities undertaken at the Site, including the amounts of reagents, amendments and Biostimulation and Bioaugmentation Compound(s) used in the Bioremediation process and the details of the source(s) of the Dry Soil combined to formulate each Bioremediation Biopile;
 - f. date, quantity, type, quality (including the analytical data from any compliance testing) and the destination of the Tested Soil;
 - g. date, quantity, type, quality (including the analytical data from any compliance testing) of the Tested Soil that was transferred back to the Bioremediation process for re-processing;
 - h. date, quantity, type, and the destination of the total Residual Waste, transferred from the Site for Final Disposal;
 - i. date, quantity, type, quality (including the analytical data from any compliance testing, if applicable) and the destination of the Rejected Waste transferred off-Site and the reason for rejection;
 - j. receipt of the Dry Soil outside of the normal approved receipt hours as allowed under Condition 4.1(2);
 - k. emergency receipt of the Dry Soil in excess of the normal daily amount approved under Condition 3.4(1);
 - l. housekeeping activities, including wetting of the Biopiles and/or storage stockpiles for dust control

and the type of material used and road cleaning activities and other dust mitigation measures;

- m. the running total of the Dry Soil temporarily stored prior to Bioremediation, the Dry Soil undergoing Bioremediation in Biopiles, and of the Dry Soil intended for transfer off-Site, all temporarily stored in their approved storage locations; and
- n. the running total of the Processed Soil and its characterization results, if characterization has been completed.

14.2 Emergency Situations

- (1) The Owner shall maintain a written or digital record of the emergency situations. The record shall include, as a minimum, the following:
 - a. the type of an emergency situation;
 - b. description of how the emergency situation was handled;
 - c. the type and amount of material spilled, if applicable;
 - d. a description of how the spilled material was cleaned up and waste stored, if generated; and
 - e. the location and time of Final Disposal, if applicable.

14.3 Inspections and Maintenance

- (1) The Owner shall maintain a written or digital record of inspections and maintenance as required under this Approval. The record shall include, as a minimum, the following:
 - a. the name and signature of person that conducted the inspection;
 - b. the date and time of the inspection;
 - c. the list of any deficiencies discovered;
 - d. the recommendations for remedial action;
 - e. the date, time and description of actions taken; and
 - f. all records on the maintenance, repair and inspection of the equipment.

14.4 Personnel Training

- (1) The Owner shall maintain a written or digital record of training as required as required under this

Approval. The record shall include, as a minimum, the following:

- a. date of training;
- b. name and signature of person who has been trained; and
- c. description of the training provided.

14.5 Sampling and Testing Records

- (1) The Owner shall establish and maintain a written or digital record of all sampling and testing activities at the Site as required under this Approval. This record shall include, as a minimum, the following information:
 - a. Waste type sampled, number of samples, sample collection locations and volume collected;
 - b. day and time of collection;
 - c. sample handling procedures;
 - d. name of the person undertaking the sampling;
 - e. parameters tested for and the results;
 - f. name of the laboratory facility conducting the testing, if applicable; and
 - g. conclusions drawn with respect to the results of the testing.

14.6 Monitoring Records

- (1) The Owner shall establish and maintain a written or digital record of all monitoring activities at the Site as required under this Approval.

14.7 Complaints Response Records

- (1) The Owner shall establish and maintain a written or digital record of all complaints and the responses as required under this Approval.

14.8 Rejected Waste Records

- (1) The Owner shall establish and maintain a written or digital record of the Rejected Waste handling activities at the Site as required under this Approval. This record shall include, as a minimum, the following information:
 - a. the reason for rejection; and

- b. the origin of the Rejected Waste, if known.

14.9 Annual Report

- (1) By March 31st following the end of each operating year, the Owner shall prepare and submit to the District Manager, an Annual Report, in an electronic format, summarizing the operation of the Site covering the previous calendar year. This Annual Report shall include, as a minimum, the following information:
 - a. annual amount and quality of the Dry Soil intended for Bioremediation received at the Site;
 - b. annual amount and quality of the Dry Soil intended for transfer off-Site received at the Site;
 - c. annual amount and quality of the Tested Soil transferred from the Site and its final destination(s);
 - d. monthly numbers of the Dry Soil trucks that have arrived at the Site and have been accepted to unload their loads;
 - e. a summary describing any Rejected Waste including quantity, type, reasons for rejection, its origin and its final destination;
 - f. annual amount of the Residual Waste transferred from the Site for Final Disposal and its destination;
 - g. number of Bioremediation Biopiles and the status of processing at the end of the operating year;
 - h. amount of unprocessed the Dry Soil temporarily stored at the Site at the end of the operating year;
 - i. amount of the Dry Soil intended for transfer off-Site temporarily stored at the Site at the end of the operating year;
 - j. summary of the mud track-out prevention measures used at the Site;
 - k. summary of the municipal roads cleaning protocols and monthly summary of the water usage by the Owner's sweeper/flusher and/or the contracted vehicles;
 - l. summary of the Site's dust and odour control measures used at the Site;
 - m. any environmental and operational problems, that could negatively impact the environment, encountered during the operation of the Site or identified during the Site inspections and any mitigative actions taken;
 - n. any changes to the Emergency Response and Contingency Plan, the Operations Manual or the Closure Plan that have been approved by the Director or the District Manager since the last Annual

Report;

- o. any recommendations to minimize environmental impacts from the operation of the Site and to improve Site operations and monitoring programs in this regard;
- p. a summary of any complaints received and the responses made, as required by this Approval;
- q. a summary of the monitoring results and analyses required by this Approval;
- r. a descriptive summary of any spills, incidents or other emergency situations which have occurred at this Site, any remedial measures taken, and the measures taken to prevent future occurrences;
- s. an annual summary of any deficiencies, items of non-compliance or process aberrations that occurred at this Site and any remedial/mitigative action taken to correct them;
- t. housekeeping and nuisance impacts prevention and mitigation measures carried out at the Site; and
- u. an up-to-date estimate of the Financial Assurance required for the Site.

(2) The Owner shall keep a copy of the latest Annual Report at the Owner's office, at all times.

15.0 DISTRICT OFFICE NOTIFICATION

15.1 Rejected Waste Notification

- (1) The District Manager shall be notified in writing of the receipt of the Rejected Waste within four (4) business days of its receipt. The following information shall be included in the notification to the District Manager:
- a. quantity and type of the Rejected Waste;
 - b. source of the Rejected Waste, if known;
 - c. reason for the rejection;
 - d. final destination of the Rejected Waste; and
 - e. date of receipt and time and date of removal from the Site.

15.2 Discharge the Stormwater

- (1) If the Owner is not able to discharge the collected stormwater to the municipal sewer as proposed in the supporting documentation listed in the attached Schedule 1, the Owner shall notify the District Manager within twenty four (24) hours from the notice of the City of Toronto prohibiting the discharge the stormwater to the municipal sewer or on the next business day, whichever

comes first.

- (2) As directed by the District Manager, the Owner shall submit a plan with an alternative method of managing the stormwater.

16.0 SITE CLOSURE

- (1) The Owner shall submit, for approval by the Director, a written Closure Plan for the Site at least nine (9) months prior to closure of the Site. This Closure Plan shall 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.
- (2) Within ten (10) days after closure of the Site, the Owner shall notify the Director, in writing, that the Site is closed and that the Closure Plan has been implemented.

Schedule 1

This Schedule 1 forms part of this Environmental Compliance Approval:

1. Environmental Compliance Approval Application dated August 8, 2013, signed by Allen Shully, Clean Soils Inc., including the attached supporting documentation.
2. Letter dated December 2, 2013, from Jennifer Baron and Michael Cant, Golder Associates, to Margaret Wojcik, Ontario Ministry of the Environment, providing additional supporting documentation on the proposal.
3. Letter dated February 21, 2014, from Jennifer Baron, Golder Associates, to Margaret Wojcik, Ontario Ministry of the Environment, providing additional supporting documentation on the proposal including but not limited to the document entitled "Design and Operations Report" dated February 2014 and prepared by Golder Associates.
4. E-mail dated December 10, 2020 (2:56 p. m.) from Tennille Pegg, GFL Environmental Inc. with the application for amendment of the Environmental Compliance Approval signed by Tennille Pegg, GFL Environmental Inc., dated December 3, 2020 and with the following attachments:
 - a. Zoning Map.pdf
 - b. Proof of Legal Name.pdf
 - c. Project & Process Description.pdf
 - d. Site Plan - 29 October 2020-C-Site Plan-.pdf
 - e. Vickers D&O V. 2.0 - December 2020.pdf
 - f. Vickers ECA Amendment Application.pdf
 - g. Vickers ECA Amendment Application-Signed Pages.pdf
5. E-mail dated March 18, 2021 (1:12 p. m.) from Tennille Pegg, GFL Environmental Inc., and the attachment entitled "2021 Vickers FA Calculations.pdf".
6. E-mail dated April 1, 2021 (4:52 p. m.) from Tennille Pegg, GFL Environmental Inc. Sara.Sideris, Ontario Ministry of the Environment, Conservation and Parks, with the following attachments:
 - a. 2021 Vickers FA Calculations.pdf
 - b. Vickers - Authority Authorization Letter.pdf
 - c. Vickers - Revised EBR Abstract.pdf
 - d. Vickers - Neighbours List.pdf
 - e. Vickers Notification Letter to Neighbours - April 2021.pdf
7. E-mail dated April 1, 2021 (4:52 p. m.) from Tennille Pegg, GFL Environmental Inc. Sara.Sideris, Ontario Ministry of the Environment, Conservation and Parks, with the following attachment:
 - a. Quote 2 - 2021 Vickers FA Calculations.pdf

8. E-mail dated April 21, 2021 (9:32 a. m.) from Tennille Pegg, GFL Environmental Inc. Sara.Sideris, Ontario Ministry of the Environment, Conservation and Parks, with the following attachments:
 - a. Vickers - Signed Authorization Page.pdf
 - b. Vickers - Authority Authorization Letter - April 15 2021(1).pdf
9. E-mail dated October 27, 2023 (12:19 p. m.) from Nadeem Soufian, GFL Environmental Inc. to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, with the attachment entitled "GFL Comments and additional information - Vickers (draft) ECA Amendment # 5023-9CCJ5V.docx"
10. E-mail dated November 8, 2023 (9:52 p. m.) from Nadeem Soufian, GFL Environmental Inc. to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing the air changes per hour in the building.

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

GENERAL

Conditions 1.1, 1.4, 1.5, 1.6, 1.9 and 1.11 are included to clarify the legal rights and responsibilities of the Owner.

Conditions 1.2 and 1.3 are included to ensure that the Site is build and operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider.

Condition 1.7(1) is included to ensure that the Site is operated under the corporate name which appears on the application form submitted for this approval and to ensure that the Director is informed of any changes. Condition 1.7(2) is included to restrict potential transfer or encumbrance of the Site without the approval of the Director and to ensure that any transfer of encumbrance can be made only on the basis that it will not endanger compliance with this Approval.

Condition 1.8 is included to ensure that the appropriate Ministry staff has ready access to the operations of the Site which are approved under this Approval. The condition is supplementary to the powers of entry afforded a Provincial Officer pursuant to the EPA, the OWRA, the PA, the NMA and the SDWA.

Conditions 1.1, 1.4, 1.5, 1.6, 1.9 and 1.11 are included to clarify the legal rights and responsibilities of the Owner.

Condition 1.10 is included to ensure that sufficient funds are available to the Ministry to clean up the Site in the event that the Owner is unable or unwilling to do so.

Conditions 1.1, 1.4, 1.5, 1.6, 1.9 and 1.11 are included to clarify the legal rights and responsibilities of the Owner.

SIGNS and SITE SECURITY

Condition 2.0 is included to ensure that the Site's users, operators and the public are fully aware of important information and restrictions related to the operation of the Site. Condition 2.0 is also included to ensure that the Site is sufficiently secured, supervised and operated by properly Trained Personnel and to ensure controlled access and integrity of the Site by preventing unauthorized access when the Site is closed and no Site personnel is on duty.

SERVICE AREA, APPROVED WASTE TYPES and RATES

Condition 3.0 is included to specify the approved Waste receipt rate, the approved and prohibited Waste types and the service area from which the Waste may be accepted at the Site based on the Owner's application and supporting documentation.

SITE OPERATIONS

Condition 4.0 is included to ensure that all Dry Soil management including receipt, storage, processing, treatment and transfer, management of run-off and the discharges to the atmosphere are undertaken in done in a way which does not result in an Adverse Effect or a hazard to the environment or any person and are in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider.

Furthermore, Condition 4.1 is included to specify the hours of operation for the Site to ensure that the hours of Site's operation do not result in an Adverse Effect or a hazard to the natural environment or any person.

Furthermore, Conditions 4.3 through 4.7 are included to ensure that only the approved waste types are accepted and handled/processed at the Site.

Condition 4.8 is also included to approve and set out the framework for a study to evaluate the effectiveness of the Bioremediation in Biopiles with mechanical aeration when treating the Dry Soil containing Higher Petroleum Hydrocarbons Concentrations or Other Organic Contaminants Concentrations.

Condition 4.11 is also included to identify the amounts of waste approved for storage at Site at any one time for the purpose of calculating the Financial Assurance requirements for the Site.

EQUIPMENT MAINTENANCE and SITE INSPECTIONS

Condition 5.0 is included to require the equipment used for waste management and pollution control to be inspected and maintained thoroughly and on a regular basis to ensure that the operations at the Site are undertaken in a manner which does not result in an Adverse Effect or a hazard to the health and safety of the environment or any person.

PROCESS MONITORING

Condition 6.0 is included to set out the Bioremediation process monitoring requirements to monitor the progression and the effectiveness of the Bioremediation at the Site.

REQUIREMENT to CHARACTERIZE at the SITE

Condition 7.0 is included to set out the testing requirements when the Owner is required to carry out testing at the Site to characterize the incoming Dry Soil or outgoing Tested Soil or waste for its compatibility with the proposed off-Site destinations.

TESTED SOIL QUALITY CRITERIA, SOIL DISPOSAL and RE-USE REQUIREMENTS

Condition 8.0 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.

HOUSEKEEPING and NUISANCE IMPACT CONTROL

Condition 9.0 is included to ensure that the Site is operated and maintained in an environmentally acceptable manner which does not result in a negative impact on the natural environment or any person.

COMPLAINT MANAGEMENT

Condition 10.0 is included to require the Owner to respond to any environmental complaints resulting from the operations at the Site appropriately and in a timely manner and that appropriate actions are taken to prevent any further incidents that may cause complaints in the future.

OPERATIONS MANUAL and PERSONNEL TRAINING

Condition 11.0 is included to ensure that personnel employed at the Site are fully aware and properly trained on the requirements and restrictions related to Site operations under this Approval.

CONTINGENCY MEASURES and EMERGENCY SITUATION RESPONSE PLAN

Condition 12.0 is included to ensure that the Owner is prepared and properly equipped to take action in the event of an emergency situation.

EMERGENCY SITUATIONS RESPONSE and REPORTING

Condition 13.0 is included to require further spill notification to the Ministry, in addition to the requirements already listed in Part X of the EPA.

RECORDS KEEPING and RETENTION

Condition 14.0 is included to ensure that detailed records of Site activities, inspections, monitoring and upsets are recorded and maintained for inspection and information purposes.

DISTRICT OFFICE NOTIFICATION

Condition 15.0 is included to ensure that the District Manager is notified of acceptance and management of Rejected Waste.

SITE CLOSURE

Condition 16.0 is included to ensure that final closure of the Site is completed in accordance with Ministry's standards.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5203-9CCJ5V issued on June 6, 2014, as amended.

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land 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 ("the Notice") 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:

Registrar*
Ontario Land 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

* **Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.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 27th day of November, 2023



Mohsen Keyvani, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

MW/

c: District Manager, MECP Toronto - District
Grimaud Montignon, GFL Environmental Inc.
Stephen Forster, GFL Environmental Inc.
Nadeem Soufian, GFL Environmental Inc.