

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 6287-BMZJCF

Issue Date: November 24, 2020

Greenfield Global Inc.  
141 Commerce Drive  
Johnstown, Ontario  
K0E 1T1

**Site Location:** Johnstown Ethanol Plant

141 Commerce Drive  
Edwardsburgh/Cardinal Township, United Counties of Leeds and Grenville  
K0E 1T1

*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:*

## **Description Section**

A fuel grade ethanol production facility, consisting of the following processes and support units:

- grain receiving, handling and milling;
- mash cooking;
- fermentation;
- distillation and dehydration;
- liquids and solids separation;
- evaporation;
- drying;
- additives and gasoline receiving, storage and blending with fuel grade ethanol;
- product storage (ethanol and denatured ethanol) and transportation;
- utilities;
- one (1) recuperative Thermal Oxidizer (C10), complete with a waste heat recovery boiler (B10), used to control emissions from the DDGS drying operations, slurry blender, slurry tanks, yeast tank, 190 proof condenser, 200 proof condenser, regen receiver tank, evaporator condenser, centrifuges and centrate tank. The thermal oxidizer is natural gas-fired, having a maximum heat input of approximately 128.78 million kilojoules per hour, discharging to the air at a volumetric flow rate of approximately 62.5 actual cubic metres per second through

a stack (S10), having an exit diameter of 2.07 metres, extending 39.8 metres above roof and 53.2 metres above grade;

- ten (10) identical natural gas-fired Power Generators (GEN-1 to GEN-10), each having a maximum power rating of 870 kilowatts of electrical output and each equipped with a three-way catalytic converter system, each discharging to the air at a volumetric flow rate of 3.20 actual cubic metres per second, through a stack having an exit diameter of 0.60 metre, extending 4.0 metres above roof and 7.0 metres above grade;
- one (1) natural gas-fired Boiler (B1) used to produce steam for the evaporator units, having a maximum heat input of 45,367,408 kilojoules per hour, discharging to the air through a stack, having an exit diameter of 0.80 metre, extending 43.9 metres above grade;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to 286 million litres per year of fuel grade ethanol and combined production of 246,000 tonnes per year of dry distillers grains with solubles and 70,000 tonnes per year of modified distiller grain with solute, discharging to the air as described in the *Original ESDM Report*.

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

1. "*ACB list*" means the document entitled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended from time to time and published by the *Ministry* and available on a Government website;
2. "*Acceptable Point of Impingement Concentration*" means a concentration accepted by the *Ministry* as not likely to cause an adverse effect for a *Compound of Concern* that,
  - a. is not identified in the *ACB list*, or
  - b. is identified in the *ACB list* as belonging to the category "Benchmark 2" and has a concentration at a *Point of Impingement* that exceeds the concentration set out for the contaminant in that document.With respect to the *Original ESDM Report*, the *Acceptable Point of Impingement Concentration* for a *Compound of Concern* mentioned above is the concentration set out in the *Original ESDM Report*;
3. "*Acoustic Assessment Report*" means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide*, by

Eric Martinez / GHD and dated April 16, 2019 submitted in support of the application, that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility*, as updated in accordance with Condition 5 of this *Approval*;

4. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit*, prepared in accordance with *Publication NPC-233*;
5. "*Acoustic Assessment Summary Table*"; means a table prepared in accordance with the *Basic Comprehensive User Guide* summarising the results of the *Acoustic Assessment Report*, as updated in accordance with Condition 5 of this *Approval*;
6. "*Acoustical Consultant*" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility*;
7. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it;
8. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;
9. "*Best Management Practices Plan*" means the document titled "Environmental Operational Controls", dated April 19, 2011 and prepared by Steve Proulx of Greenfield Global Inc.;
10. "*Boiler*" means the Boiler, described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
11. "*Company*" means Greenfield Global Inc. that is responsible for the construction or operation of the *Facility* and includes any successors and assigns in accordance with section 19 of the *EPA*;
12. "*Compound of Concern*" means a contaminant described in paragraph 4 subsection 26 (1) of *O. Reg. 419/05*, namely, a contaminant that is discharged from the *Facility* in an amount that is not negligible;
13. "*Description Section*" means the section on page one of this *Approval* describing the *Company's* operations and the *Equipment* located at the *Facility* and specifying the *Facility Production Limit* for the *Facility*;
14. "*Director*" means a person appointed for the purpose of section 20.3 of the *EPA* by the *Minister* pursuant to section 5 of the *EPA*;
15. "*District Manager*" means the District Manager of the appropriate local district

office of the *Ministry*, where the *Facility* is geographically located;

16. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*;
17. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
18. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
19. "*Equipment*" means equipment or processes described in the *ESDM Report*, this *Approval* and in the *Schedules* referred to herein and any other equipment or processes;
20. "*Equipment with Specific Operational Limits*" means the *Thermal Oxidizer, Power Generators, Boiler* and any *Equipment* related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other *Equipment* that is specifically referenced in any published *Ministry* document that outlines specific operational guidance that must be considered by the *Director* in issuing an *Approval*;
21. "*ESDM Report*" means the most current Emission Summary and Dispersion Modelling Report that describes the *Facility*. The *ESDM Report* is based on the *Original ESDM Report* and is updated after the issuance of this *Approval* in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document*;
22. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
23. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*;
24. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* not representing the *Company*, and not involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility/Equipment*. The *Independent Acoustical Consultant* shall not be retained by the consultant involved in the noise/vibration impact assessment or the design/implementation of noise/vibration control measures for the *Facility/Equipment*;
25. "*Log*" means a document that contains a record of each change that is required to be made to the *ESDM Report* and *Acoustic Assessment Report*, including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a *Point of Impingement* and all changes to information associated with a *Modification* to the *Facility* that satisfies Condition 2;
26. "*Manager*" means the Manager, Technology Standards Section, Technical

Assessment and Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, as those duties relate to the conditions of this *Approval*;

27. "*Minister*" means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the *EPA* under the Executive Council Act;
28. "*Ministry*" means the ministry of the *Minister*;
29. "*Modification*" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the *Facility* that may discharge or alter the rate or manner of discharge of a *Compound of Concern* to the air or discharge or alter noise or vibration emissions from the *Facility*;
30. "*Noise Control Measures*" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers;
31. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
32. "*Original ESDM Report*" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document* by Erik Martinez, P.Eng. / GHD and dated April 10, 2019 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*;
33. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05*;
34. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300*, as applicable;
35. "*Power Generators*" means the ten (10) identical Power Generators, each rated at 870 kilowatts and equipped with a three-way catalytic converter system, described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
36. "*Pre-Test Plan*" means a plan for the *Source Testing* including the information required in Section 5 of the *Source Testing Code*;
37. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated February 2017, as amended;
38. "*Processes with Significant Environmental Aspects*" means the *Equipment* which, during regular operation, would discharge one or more contaminants into the air in

an amount which is not considered as negligible in accordance with section 26 (1) 4 of *O. Reg. 419/05* and the *Procedure Document*;

39. "*Publication NPC-103*" means Publication NPC-103, Procedures, August 1978;
40. "*Publication NPC-207*" means the *Ministry* draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the *Ministry*, August 1978, as amended;
41. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
42. "*Publication NPC-300*" means the *Ministry* Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", August 2013, as amended;
43. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
  - Schedule A - Supporting Documentation;
  - Schedule B - Continuous Temperature Monitoring and Recording System;
  - Schedule C - Emission Limit - Power Generators; and
  - Schedule D - Source Testing Procedures;
44. "*Source Testing*" means sampling and testing to measure emissions resulting from operating the *Power Generators* under conditions which yield the worst case emissions within the approved operating range of the *Power Generators* which satisfies paragraph 1 of subsection 11(1) of *O. Reg. 419/05*;
45. "*Source Testing Code*" means the Ontario Source Testing Code, dated June 2010, prepared by the *Ministry*, as amended;
46. "*Thermal Oxidizer*" means the Thermal Oxidizer, described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
47. "*Toxicologist*" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants; and
48. "*Written Summary Form*" means the electronic questionnaire form, available on the *Ministry* website, and supporting documentation, that documents the activities undertaken at the *Facility* in the previous calendar year.

*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. GENERAL

1. Except as otherwise provided by this *Approval*, the *Facility* shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this *Approval* and in accordance with the following *Schedules* attached hereto:
  - Schedule A - Supporting Documentation
  - Schedule B - Continuous Temperature Monitoring and Recording System
  - Schedule C - Emission Limit - Power Generators
  - Schedule D - Source Testing Procedures

### 2. LIMITED OPERATIONAL FLEXIBILITY

1. Pursuant to section 20.6 (1) of the *EPA* and subject to Conditions 2.2 and 2.3 of this *Approval*, future construction, alterations, extensions or replacements are approved in this *Approval* if the future construction, alterations, extensions or replacements are *Modifications* to the *Facility* that:
  - a. are within the scope of the operations of the *Facility* as described in the *Description Section* of this *Approval*;
  - b. do not result in an increase of the *Facility Production Limit* above the level specified in the *Description Section* of this *Approval*; and
  - c. result in compliance with the performance limits as specified in Condition 4.
2. Condition 2.1 does not apply to,
  - a. the addition of any new *Equipment with Specific Operational Limits* or to the *Modification* of any existing *Equipment with Specific Operational Limits* at the *Facility*; and
  - b. *Modifications* to the *Facility* that would be subject to the *Environmental Assessment Act*.
3. Condition 2.1 of this *Approval* shall expire ten (10) years from the date of this *Approval*, unless this *Approval* is revoked prior to the expiry date. The *Company* may apply for renewal of Condition 2.1 of this *Approval* by including an *ESDM Report* and an *Acoustic Assessment Report* that describes the *Facility* as of the date of the renewal application.

### 3. REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION

1. Prior to making a *Modification* to the *Facility* that satisfies Condition 2.1.a. and 2.1.b., the *Company* shall prepare a proposed update to the *ESDM Report* to reflect the proposed *Modification*.
2. The *Company* shall request approval of an *Acceptable Point of Impingement Concentration* for a *Compound of Concern* if the *Compound of Concern* is not identified in the *ACB list* as belonging to the category "Benchmark 1" and a proposed update to an *ESDM Report* indicates that one of the following changes with respect to the concentration of the *Compound of Concern* may occur:
  - a. The *Compound of Concern* was not a *Compound of Concern* in the previous version of the *ESDM Report* and
    - i. the concentration of the *Compound of Concern* exceeds the concentration set out for the contaminant in the *ACB list*; or
    - ii. the *Compound of Concern* is not identified in the *ACB list*; or
  - b. The concentration of the *Compound of Concern* in the updated *ESDM Report* exceeds the higher of,
    - i. the most recent *Acceptable Point of Impingement Concentration*, and
    - ii. the concentration set out for the contaminant in the *ACB list*, if the contaminant is identified in that document.
3. The request required by Condition 3.2 shall propose a concentration for the *Compound of Concern* and shall contain an assessment, performed by a *Toxicologist*, of the likelihood of the proposed concentration causing an adverse effect at *Points of Impingement*.
4. If the request required by Condition 3.2 is a result of a proposed *Modification* described in Condition 3.1, the *Company* shall submit the request, in writing, to the *Director* at least 30 days prior to commencing to make the *Modification*. The *Director* shall provide written confirmation of receipt of this request to the *Company*.
5. If a request is required to be made under Condition 3.2 in respect of a proposed *Modification* described in Condition 3.1, the *Company* shall not make the *Modification* mentioned in Condition 3.1 unless the request is approved in writing by the *Director*.
6. If the *Director* notifies the *Company* in writing that the *Director* does not approve the request, the *Company* shall,



- a. revise and resubmit the request; or
  - b. notify the *Director* that it will not be making the *Modification*.
7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
  8. If the *Director* approves the request, the *Company* shall update the *ESDM Report* to reflect the *Modification*.
  9. Condition 3 does not apply if Condition 2.1 has expired.

#### 4. PERFORMANCE LIMITS

1. Subject to Condition 4.2, the *Company* shall not discharge or cause or permit the discharge of a *Compound of Concern* into the air if,
  - a. the *Compound of Concern* is identified in the *ACB list* as belonging to the category "Benchmark 1" and the discharge results in the concentration at a *Point of Impingement* exceeding the Benchmark 1 concentration; or
  - b. the *Compound of Concern* is not identified in the *ACB list* as belonging to the category "Benchmark 1" and the discharge results in the concentration at a *Point of Impingement* exceeding the higher of,
    - i. if an *Acceptable Point of Impingement Concentration* exists, the most recent *Acceptable Point of Impingement Concentration*, and
    - ii. the concentration set out for the contaminant in the *ACB list*, if the contaminant is identified in that document.
2. Condition 4.1 does not apply if the benchmark set out in the *ACB list* has a 10-minute averaging period and no ambient monitor indicates an exceedance at a *Point of Impingement* where human activities regularly occur at a time when those activities regularly occur.
3. The *Company* shall ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*.
4. The *Company* shall ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207*.
5. The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report* and Condition 12 in this *Approval*.

#### 5. DOCUMENTATION REQUIREMENTS

1. The *Company* shall maintain an up-to-date *Log*.
2. No later than March 31 in each year, the *Company* shall update the *Acoustic*

*Assessment Report* and shall update the *ESDM Report* in accordance with section 26 of *O. Reg. 419/05* so that the information in the reports is accurate as of December 31 in the previous year.

3. The *Company* shall make the *Emission Summary Table* (see section 27 of *O. Reg. 419/05*) and *Acoustic Assessment Summary Table* available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the *Facility*.
4. The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval*, update the *ESDM Report* and the *Acoustic Assessment Report* such that the information in the reports is accurate as of the date that Condition 2.1 of this *Approval* expired.
5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

## 6. REPORTING REQUIREMENTS

1. Subject to Condition 6.2, the *Company* shall provide the *Director* no later than June 30 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:
  - a. a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval*;
  - b. a summary of each *Modification* satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception*.
2. Condition 6.1 does not apply if Condition 2.1 has expired.

## 7. OPERATION AND MAINTENANCE

1. The *Company* shall prepare and implement, not later than three (3) months from the date of this *Approval*, operating procedures and maintenance programs for all *Processes with Significant Environmental Aspects*, which shall specify as a minimum:
  - a. frequency of inspections and scheduled preventative maintenance;
  - b. procedures to prevent upset conditions;
  - c. procedures to minimize all fugitive emissions;
  - d. procedures to prevent and/or minimize odorous emissions;
  - e. procedures to prevent and/or minimize noise emissions; and
  - f. procedures for record keeping activities relating to the operation and

maintenance programs.

2. The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained in accordance with this *Approval*, the operating procedures and maintenance programs.

## 8. COMPLAINTS RECORDING AND REPORTING

1. If at any time, the *Company* receives an environmental complaint from the public regarding the operation of the *Equipment* approved by this *Approval*, the *Company* shall take the following steps:
  - a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.
  - b. Notify the *District Manager* of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the *District Manager*.
  - c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
  - d. Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

## 9. RECORD KEEPING REQUIREMENTS

1. Any information requested by any employee in or agent of the *Ministry* concerning the *Facility* and its operation under this *Approval*, including, but not limited to, any records required to be kept by this *Approval*, shall be provided to the employee in or agent of the *Ministry*, upon request, in a timely manner.
2. Unless otherwise specified in this *Approval*, the *Company* shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this *Approval*, including,
  - a. a copy of the *Original ESDM Report* and each updated version;
  - b. a copy of each version of the *Acoustic Assessment Report*;
  - c. supporting information used in the emission rate calculations performed

- in the *ESDM Reports* and *Acoustic Assessment Reports*;
- d. the records in the *Log*;
  - e. copies of each *Written Summary Form* provided to the *Ministry* under Condition 6.1 of this *Approval*;
  - f. records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects*; and
  - g. all records related to environmental complaints made by the public as required by Condition 8 of this *Approval*.

#### 10. FUGITIVE DUST CONTROL

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

#### 11. GASOLINE VAPOUR CONTROL

1. The *Company* shall, at all times, ensure that all transfer of gasoline is carried out by submerged fill from cargo tank trucks into the gasoline storage tank at the *Facility*, using an operable vapour balancing system.
2. The *Company* shall, at all times, ensure that all product loading of denatured ethanol from the *Facility* is limited to vapour-tight tank trucks. The *Company* shall install a vapour balancing system to control emissions from denatured ethanol loading not later than five (5) years from the date of this *Approval*.
3. The *Company* shall establish and maintain a digital or written record of the following:
  - a. the daily transfer rate of gasoline from cargo tank trucks into the gasoline storage tank at the *Facility*; and
  - b. the daily loading rate of denatured ethanol into the vapour-tight tank trucks for product shipping.

#### 12. EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS

1. The *Company* shall ensure that the *Thermal Oxidizer* is designed and operated to comply, at all times, with the following requirements:
  - a. The combustion chamber of the *Thermal Oxidizer* shall be preheated to a minimum of 816 degrees Celsius, as measured by the continuous monitoring and recording system, prior to introducing the process exhaust gases;
  - b. The temperature in the combustion chamber of the *Thermal Oxidizer*, is

maintained at a minimum of 816 degrees Celsius, as measured by the continuous monitoring and recording system, at all times, when the *Thermal Oxidizer* is in operation; and

- c. The residence time of the combustion gases in the combustion chamber of the *Thermal Oxidizer* shall not be less than 0.75 seconds at a minimum temperature of 816 degrees Celsius.
2. The *Company* shall continuously monitor and record the temperature in the combustion chamber of the *Thermal Oxidizer*, when the *Thermal Oxidizer* is in operation. The continuous temperature monitoring and recording system shall comply with the requirements outlined in Schedule B.
3. The *Company* shall retain, for a minimum of five (5) years from the date of their creation, all records on the maintenance and repair of the *Thermal Oxidizer*, as well as information related to or resulting from the recording activities required by this *Approval*, and make these records available for review by staff of the *Ministry* upon request. The *Company* shall retain:
  - a. all records on the maintenance, repair and inspection of the *Thermal Oxidizer*;
  - b. all records on the maintenance, repair and calibration of the continuous temperature monitoring and recording device; and
  - c. daily records of the actual operating temperature in the combustion chamber of the *Thermal Oxidizer*.
4. The *Company* shall ensure that the *Power Generators* are designed and operated to comply, at all times during normal operating conditions, and not during start-up, with the following performance requirements:
  - a. The emission of nitrogen oxides in the gases emitted from the stack of the *Power Generators* shall not be greater than the emission limit specified in Schedule C.
5. The *Company* shall perform *Source Testing* once every two (2) years to determine the rate of emission of nitrogen oxides (expressed as nitrogen dioxide equivalent) from one of the *Power Generators*, in accordance with the procedures in Schedule D.

### 13. **NOISE RESTRICTIONS AND ACOUSTIC AUDIT**

1. The *Company* shall restrict operation of locomotive movement and shunting during the night time between 11:00 pm to 07:00 am.
2. The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*, following the installation of proposed *Equipment* and associated *Noise Control Measures*.

3. The *Company* shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*.
4. The *Company* shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director*, not later than six (6) months after the new equipment installation with incorporated *Noise Control Measure*.
5. The *Director*:
  - a. may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed; and
  - b. may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director*.

#### 14. **REVOCAION OF PREVIOUS APPROVALS**

1. This *Approval* replaces and revokes all Certificates of Approval (Air) issued under section 9 *EPA* and Environmental Compliance Approvals issued under Part II.1 *EPA* to the *Facility* in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval*.

## **SCHEDULE A**

### **Supporting Documentation**

1. Environmental Compliance Approval Application, dated March 25, 2019, signed by Steve Proulx, EHS Manager and submitted by the *Company*;
2. Emission Summary and Dispersion Modelling Report, prepared by Erik Martinez, P.Eng. / GHD and dated April 10, 2019;
3. *Acoustic Assessment Report*, prepared by Erik Martinez, P.Eng. / GHD and dated April 16, 2019;
4. An e-mail from Gavin Moore of GHD, addressed to Rosalinda Ahmed and dated April 17, 2020, responding to request for additional information, including information on the proposed *Facility Production Limit*, clarification of the proposed equipment installation/upgrades, supporting information on the change of scope proposal to remove the odour performance and odour source testing requirements in the *Approval*, details on the pollution control equipment associated with the *Power Generators*, supporting documents demonstrating that the *Boiler* complies with the ministry's Guideline A-9 requirements, updated assessment of benzene emissions, revised cooling tower design and emission estimates, revised dust collector flowrates and emission estimates, revised emission estimates for storage

tanks and product loading operations, updated estimates of fugitives emissions from grain handling/processing, corrected emission estimates from the *Thermal Oxidizer*, and revised air dispersion modelling assessment;

5. An e-mail from Gavin Moore of GHD, addressed to Rosalinda Ahmed and dated June 18, 2020, responding to request for clarification on the proposed modification to the liquefaction process;
6. An e-mail from Gavin Moore of GHD, addressed to Rosalinda Ahmed and dated August 11, 2020, responding to request for revised emission estimation methods that follows *O. Reg. 419/05* requirements for storage tanks and product loading operations and revised air dispersion modelling assessment, and including a confirmation that the *Facility* would no longer receive gasoline via rail cars and would no longer increase the gasoline content in denatured ethanol production;
7. An e-mail from Gavin Moore of GHD, addressed to Rosalinda Ahmed and dated September 30, 2020, providing supporting documentation on the *Power Generators* and updated Source Summary Table and Emission Summary Table;
8. An e-mail from Steve Proulx of Greenfield Global Inc., addressed to Rosalinda Ahmed and dated October 29, 2020, providing revised emission estimates for denatured ethanol loading, updated Source Summary Table and Emission Summary Table, and request for change of scope proposal to install a vapour balancing system for denatured ethanol loading in five (5) years.

## SCHEDULE B

### Continuous Temperature Monitoring and Recording System

<b>PARAMETER:</b> <b>LOCATION:</b> <b>PERFORMANCE:</b> <b>DATA RECORDER:</b> <b>RELIABILITY:</b>	Temperature	
	The sample point for the continuous temperature monitoring and recording system shall be located at a location where the measurements are representative of the minimum temperature of the gases leaving the combustion chamber of the <i>Thermal Oxidizer</i> .	
	The continuous temperature monitoring and recording system shall meet the following minimum performance specifications for the following parameters.	
	<b>PARAMETERS</b>	<b>SPECIFICATION</b>
Type:	shielded "K" type thermocouple, or equivalent	
Accuracy:	±1.5 percent of the minimum gas temperature	

	<p>The data recorder must be capable of registering continuously the measurement of the monitoring system without a significant loss of accuracy and with a time resolution of 1 minute or better.</p> <p>The monitoring system shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.</p>
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## SCHEDULE C

### Emission Limit - Power Generators

Contaminant	Maximum Limit
Nitrogen Oxides	0.4 kilograms per Megawatt-hour

## SCHEDULE D

### Source Testing Procedures

1. The *Company* shall submit, not later than three (3) months prior to the *Source Testing*, to the *Manager* a *Pre-Test Plan* for the *Source Testing* of the *Power Generators*. The *Company* shall finalize the *Pre-Test Plan* in consultation with the *Manager*.
2. The *Company* shall not commence the *Source Testing* required under this *Approval* until the *Manager* has approved the *Pre-Test Plan*.
3. The *Company* shall complete the *Source Testing* not later than three (3) months after the *Manager* has approved the *Pre-Test Plan*, or three (3) months after commencement of operation of the *Power Generators*, whichever occurs later, or within a period directed or agreed to in writing by the *Manager* and the *District Manager*.
4. The *Company* shall notify the *Manager*, the *District Manager* and the *Director* in writing of the location, date and time of any impending *Source Testing* required by this *Approval*, at least fifteen (15) days prior to the *Source Testing*.
5. The *Company* shall submit a report (hardcopy and electronic format) on the *Source Testing* to the *Manager*, the *District Manager* and the *Director* not later than three (3) months after completing the *Source Testing*. The report shall be in the format described in the *Source Testing Code*, and shall also include, but not be limited to:
  - a. an executive summary;
  - b. an identification of the applicable North American Industry Classification



System code (NAICS) for the *Facility*;

- c. records of operating conditions at the time of *Source Testing*, including but not limited to the following:
    - i. production data;
    - ii. *Facility*/process information related to the operation of the *Power Generators*;
    - iii. operational description at the time of testing;
  - d. results of *Source Testing*, including the emission rate, emission concentration, and relevant emission factor of nitrogen oxides from the *Power Generators*; and
  - e. a tabular comparison of *Source Testing* results for nitrogen oxides from the *Power Generators* to original emission estimates described in the *Company's* application and the *ESDM Report*.
6. The *Director* may not accept the results of the *Source Testing* if:
- a. the *Source Testing Code* or the requirements of the *Manager* were not followed;
  - b. the *Company* did not notify the *Manager*, the *District Manager* and *Director* of the *Source Testing*; or
  - c. the *Company* failed to provide a complete report on the *Source Testing*.
7. If the *Director* does not accept the results of the *Source Testing*, the *Director* may require re-testing. If re-testing is required, the *Pre-Test Plan* strategies need to be revised and submitted to the *Manager* for approval. The actions taken to minimize the possibility of the *Source Testing* results not being accepted by the *Director* must be noted in the revised *Pre-Test Plan* submission to the *Manager*.
8. If the *Source Testing* results indicate the emission estimates are higher than the original emission estimates described in the *Company's* application and the *ESDM Report*, the *Company* shall update their *ESDM Report* in accordance with Section 26 of *O. Reg. 419/05* with the emission estimates from the *Source Testing* report and make these records available for review by staff of the *Ministry* upon request. The updated *Emission Summary Table* from the updated *ESDM Report* shall be submitted with the report on the *Source Testing*.

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

#### 1. **GENERAL**

Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the Supporting Documentation in

Schedule A considered by the *Director* in issuing this *Approval*.

**2. LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION AND PERFORMANCE LIMITS**

Conditions No. 2, 3 and 4 are included to limit and define the *Modifications* permitted by this *Approval*, and to set out the circumstances in which the *Company* shall request approval of an *Acceptable Point of Impingement Concentration* prior to making *Modifications*. The holder of the *Approval* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit*. In return for the operational flexibility, the *Approval* places performance based limits that cannot be exceeded under the terms of this *Approval*. *Approval* holders will still have to obtain other relevant approvals required to operate the *Facility*, including requirements under other environmental legislation such as the *Environmental Assessment Act*.

**3. DOCUMENTATION REQUIREMENTS**

Condition No. 5 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this *Approval* and allows the *Ministry* to monitor ongoing compliance with these performance limits. The *Company* is required to have an up to date *ESDM Report* and *Acoustic Assessment Report* that describe the *Facility* at all times and make the *Emission Summary Table* and *Acoustic Assessment Summary Table* from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility*.

**4. REPORTING REQUIREMENTS**

Condition No. 6 is included to require the *Company* to provide a yearly *Written Summary Form* to the *Ministry*, to assist the *Ministry* with the review of the site's compliance with the *EPA*, the regulations and this *Approval*.

**5. OPERATION AND MAINTENANCE**

Condition No. 7 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes.

**6. COMPLAINTS RECORDING AND REPORTING PROCEDURE**

Condition No. 8 is included to require the *Company* to respond to any environmental complaints regarding the operation of the *Equipment*, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

**7. RECORD KEEPING REQUIREMENTS**

Condition No. 9 is included to require the *Company* to retain all documentation

related to this *Approval* and provide access to employees in or agents of the *Ministry*, upon request, so that the *Ministry* can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this *Approval* is necessary.

**8. FUGITIVE DUST CONTROL**

Condition No. 10 is included to emphasize that the *Equipment* must be maintained and operated according to a procedure that will result in compliance with the *EPA*, the Regulations and this *Approval*.

**9. GASOLINE VAPOUR CONTROL**

Condition No. 11 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes.

**10. EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS**

Conditions 12.1, 12.2 and 12.3 are included to emphasize that the *Thermal Oxidizer* must be maintained and operated according to a procedure that will result in compliance with the *EPA*, the Regulations and this *Approval*. Condition 12.4 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Power Generators*. Condition 12.5 is included to required the *Company* to gather and retain accurate information so that compliance with the *EPA*, the Regulations and this *Approval* can be verified.

**11. NOISE RESTRICTIONS AND ACOUSTIC AUDIT**

Condition No. 13 is included to require the *Company* to implement *Noise Control Measures* designed to ensure that the noise emissions from the *Facility* will be in compliance with applicable limits set in the *Ministry's* noise guidelines, and to gather accurate information and submit an *Acoustic Audit Report* in accordance with procedures set in the *Ministry's* noise guidelines, so that the environmental impact and subsequent compliance with the *EPA*, the regulation and this *Approval* can be verified.

**12. REVOCATION OF PREVIOUS APPROVALS**

Condition No. 14 is included to identify that this *Approval* replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval*.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 2859-84QRY Y issued on June 11, 2010.**

*In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with*

*Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:*

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.*

*The Notice should also include:*

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

*And the Notice should be signed and dated by the appellant.*

*This Notice must be served upon:*

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

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

AND  
The Director appointed for the purposes of  
Part II.1 of the Environmental Protection Act  
Ministry of the Environment, Conservation  
and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.*

*The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.*

DATED AT TORONTO this 24th day of  
November, 2020

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

RA/  
c: District Manager, MECP Kingston - District  
Erik Martinez, GHD Limited