

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 8437-BGLH4F

Issue Date: July 14, 2020

PepsiCo Canada ULC  
34 Hunter Street West  
Peterborough, Ontario  
K9J 7B2

**Site Location:** 34 Hunter Street West  
Peterborough City, County of Peterborough

*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 facility producing various food products, such as dry cereals, muffin mixes, ready-to-eat breakfast items, and grain products, consisting of the following processes and support units:

- grain storage and handling;
- mixing operations;
- puffing operations;
- baking;
- cooling;
- quality control;
- packaging and shipping operations;
- one (1) natural gas fired boiler, identified as Boiler No. 1, with a maximum heat input of 22.07 million kilojoules per hour, discharging to the air at a volumetric flow rate of 3.98 cubic metres per second through a stack, having an exit diameter of 0.93 metre, extending 12.7 metres above grade and 6.1 metres above the roof;
- one (1) natural gas fired boiler, identified as Boiler No. 2, with a maximum heat input of 22.07 million kilojoules per hour, discharging to the air at a volumetric flow rate of 3.98 cubic metres per second through a stack, having an exit diameter of 0.93 metre, extending 12.7 metres above grade and 6.1 metres above the roof;
- one (1) oat by-product fired combustor, rated to burn up to a total of 3,240 kilograms of oat by-product fuel per hour (nominal capacity is 2,945 kg/hr), with a

maximum heat input of 50.6 million kilojoules per hour, equipped with a multicyclone and an electrostatic precipitator and a natural gas fired burner designed for combustion chamber warmup, startup, co-firing and shutdown, having a maximum heat input of 5.27 million kilojoules per hour;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to **118,434,440 kilograms of finished products per year**, 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 Mike Masschaele / GHD Limited and dated June 19, 2020, 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 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 8 of this *Approval*;
5. "*Acoustic Audit*" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the *Facility*, assessed to determine compliance with the Performance Limits for the

*Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233*;

6. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit* , prepared in accordance with *Publication NPC-233*;
7. "*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*;
8. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it;
9. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;
10. "*Combustor*" mean the *Oat By-Product Fuel* fired combustor and all associated *Equipment* as described in the *Original ESDM Report* and the *Description Section* of this *Approval*;
11. "*Company*" means **PepsiCo Canada ULC** 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. "*Continuous Monitoring Plan*" means a document that describes the *Continuous Monitoring System* that the *Company* will use for continuous monitoring;
14. "*Continuous Monitoring System*" means the continuous monitoring equipment, data acquisition system and associated operation, maintenance, verification and auditing procedures described in the *Continuous Monitoring Plan*;
15. "*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*;
16. "*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*;
17. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;
18. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*;

19. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
20. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
21. "*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;
22. "*Equipment with Specific Operational Limits*" means Boiler No. 1, Boiler No. 2, the *Combustor* 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*;
23. "*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*;
24. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
25. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*;
26. "*Fuel Management Plan*" means a document or a set of documents prepared by the *Company* to provide written instructions to staff of the *Company*;
27. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* who is not representing the *Company* and was not involved in preparing the *Acoustic Assessment Report* or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*. The Independent Acoustical Consultant shall not be retained by the *Acoustical Consultant* involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*;
28. "*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;
29. "*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*;

30. "*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;
31. "*Ministry*" means the ministry of the *Minister*;
32. "*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*;
33. "*Noise Control Measures*" means measures to reduce the noise emission from the *Facility* and/or Equipment including, but not limited to silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers. It also means the noise control measures outlined in the *Acoustic Assessment Report*;
34. "*Oat By-Product Fuel*" means oat hulls and their related screenings;
35. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
36. "*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 Gordon Reusing / GHD and dated August 1, 2019 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*;
37. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05*;
38. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300*;
39. "*Pre-Test Plan*" means a plan for the *Source Testing* including the information required in Section 5 of the *Source Testing Code*;
40. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
41. "*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*;
42. "*Publication NPC-103*" means the *Ministry* Publication NPC-103 of the Model

Municipal Noise Control By-Law, Final Report, August 1978, published by the *Ministry*, as amended;

43. "*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;
44. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
45. "*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;
46. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
  - Schedule A - Supporting Documentation;
  - Schedule B - Performance Requirements - In-Stack Emission Limits;
  - Schedule C - *Test Contaminants*; and
  - Schedule D - *Source Testing* Procedures;
47. "*Shut-down*" means an operating condition during which the operation of a source of contaminant is decreased from normal operating conditions to an inoperative state;
48. "*Source Testing*" means site-specific sampling and testing to measure emissions resulting from operating the *Combustor* under operating conditions that will derive an emission rate that, for the relevant averaging period of the contaminant, is at least as high as the maximum emission rate that the source of contaminant is reasonably capable of, within the approved operating range of the *Combustor* which satisfies paragraph 1 of subsection 11(1) of *O. Reg. 419/05*;
49. "*Source Testing Code*" means the Ontario Source Testing Code, dated June 2010, prepared by the *Ministry*, as amended;
50. "*Start-up*" means an operating condition during which the operation of a source of contaminant is increased from an inoperative state to normal operating conditions;
51. "*Test Contaminants*" means the contaminants listed in Schedule C;
52. "*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
53. "*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 - Performance Requirements - In-Stack Emission Limits;
  - Schedule C - *Test Contaminants*; and
  - 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*; or
  - 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:
  - a. implement not later than one hundred and twenty (120) months after the date of this *Approval*, the *Noise Control Measures* as outlined in the *Acoustic Assessment Report*;
  - b. ensure, following the implementation of the *Noise Control Measures*, that the noise emissions from the *Facility* comply with the limits set in *Ministry Publications NPC-300*; and

- c. ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performance outlined in the *Acoustic Assessment Report*.
4. The *Company* shall, at all times, 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 *Conditions* in this *Approval*.

## 5. EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS

1. The *Company* shall ensure that the *Combustor* is operated to comply with the following performance requirements:
  - a. the concentration of oxygen in the undiluted gas emitted from the combustion chamber of the *Combustors*, as measured by the *Continuous Monitoring System*, shall not be less than 4 per cent by volume on a 3-hour rolling average and dry basis.
  - b. the undiluted gases emitted from the *Combustor* shall comply with the performance requirements specified in Schedule B of this *Approval*;
  - c. only *Oat By-Product Fuel* as defined by this *Approval* is used as a solid fuel in the *Combustor*; and
  - d. only natural gas is used as a gaseous fuel in the *Combustor*.
2. The *Company* shall take reasonable steps to ensure that the operation of the *Combustor* meets the following targets:
  - a. the temperature in the combustion chamber of the *Combustor* is greater than 800 degrees Celsius; and
  - b. the residence time, of the products of combustion and the combustion air, in the combustion chamber is not less than 1 second.
3. Conditions 5.1(a), 5.1(b) and 5.2 do not apply during the *Start-up* and *Shut-down* periods of the *Combustor* if:
  - a. the *Shut-down* does not last for more than 6 hours;
  - b. the *Start-up* does not last for more than 24 hours; and
  - c. the *Start-up* or *Shut-down* is conducted according to a written plan that minimizes discharges into the air during the period of start-up or shut-down.

## 6. SOURCE TESTING

1. The *Company* shall perform *Source Testing* every (4) years in accordance

with the procedure outlined in Schedule D, to determine the rate of emission of the *Test Contaminants* from the *Combustor* when firing only *Oat By-Product Fuel*. The first *Source Testing* program shall be conducted within one (1) year of the date of the *Approval* or within six (6) months of the commencement of operations, whichever comes later.

## 7. PERFORMANCE MONITORING

1. The *Company* shall ensure that the following parameters for the *Combustor* are measured continuously and that the measurements are recorded as block-averages over every five-minute period:
  - a. the concentration of oxygen in the flue gas as measured by an oxygen lambda sensor, expressed as per cent by volume on a wet basis;
  - b. the induced draft fan speed or per cent of maximum fan speed;
  - c. the percentage of the nominal input/output capacity at which the *Combustor* is operating; and
  - d. the flue gas temperature.
2. The *Company* shall develop a plan to monitor the *Combustor* air pollution control equipment performance, including metrics to be monitored and frequency of monitoring, and implement the plan upon commencement of operations of the *Combustor*;
3. The *Company* shall ensure that each piece of monitoring equipment used to measure the parameters set out in Conditions 7.1 and 7.2 is properly maintained, inspected and calibrated in accordance the manufacturer's recommendations.
4. The *Company* shall ensure that the measurements required by Conditions 7.1 and 7.2 are retained for at least a 12-month period after the date the measurement was taken.

## 8. CONTINUOUS MONITORING

1. The *Company* shall submit, to the *Manager*, not later than sixty (60) days from the date of this *Approval*, a *Continuous Monitoring Plan* for the *Continuous Monitoring System* that will continuously monitor the concentration of oxygen and carbon monoxide in the undiluted flue gas emitted from the *Combustor*.
2. The *Continuous Monitoring Plan* shall include descriptions of, but not be limited to:
  - a. source and air pollutants / parameters requiring continuous monitoring and associated targets / in-stack limits;

- b. sample probe and gas calibration port location(s) and associated flue gas conditions;
  - c. sample extraction, transport and conditioning system;
  - d. analyzer performance specifications;
  - e. relative accuracy and reference method for test audit;
  - f. performance indicators and monitoring frequency;
  - g. communication protocol(s) and corrective action(s) regarding malfunctions;
  - h. preventative maintenance and spare parts;
  - i. service contractor and staff responsibilities including training;
  - j. other operating and maintenance procedures as applicable;
  - k. data acquisition system; and
  - l. data verification procedures.
3. The *Company* shall finalize the *Continuous Monitoring Plan* in consultation with the *Manager*.
4. The *Company* shall procure, install, operate and maintain the *Continuous Monitoring System* not later than six (6) months after the *Manager* has approved the *Continuous Monitoring Plan*. A current copy of the *Continuous Monitoring Plan* shall be kept at an accessible location for easy access by persons responsible for supervising, operating and maintaining the *Continuous Monitoring System* and associated data as well as by a Ministry representative, upon request.

## 9. DOCUMENTATION REQUIREMENTS

1. The *Company* shall maintain an up-to-date *Log*.
2. No later than June 30 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 9.1 and 9.2 do not apply if Condition 2.1 has expired.

## 10. REPORTING REQUIREMENTS

1. Subject to Condition 10.2, the *Company* shall provide the *Director* no later than August 31 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 10.1 does not apply if Condition 2.1 has expired.

## 11. 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. the *Combustor* ash removal, handling and disposal procedures;
  - c. procedures to prevent upset conditions;
  - d. procedures to minimize all fugitive emissions;
  - e. procedures to prevent and/or minimize odorous emissions;
  - f. procedures to prevent and/or minimize noise emissions; and
  - g. 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.

## 12. BI-ANNUAL TUNE-UP

1. The *Company* shall conduct, within two (2) years of the date of this *Approval* and repeat every two (2) years thereafter, a tune-up of the *Combustor* to assist in achieving effective combustion. The tune-up shall include but not be

limited to:

- a. Physical inspection of the following:
  - i. fuel handling equipment;
  - ii. fuel distribution equipment;
  - iii. combustion air system;
  - iv. air measurement devices;
  - v. grates or burners; and
  - vi. air pollution control equipment.
- b. Review of equipment performance:
  - i. review carbon monoxide and oxygen data;
  - ii. review airflow data;
  - iii. review air to fuel ratio data and verify operating within design criteria;
  - iv. review calibration data and performance of the continuous monitoring system; and
  - v. review air pollution control equipment performance metrics.
- c. Conduct combustion test:
  - i. visual observation of combustion;
  - ii. monitor and adjust excess air ratio; and
  - iii. monitor oxygen and carbon monoxide data.

2. A report shall be prepared for each tune-up, retained for a minimum of five (5) years after its creation, and made available for review by the *Ministry* upon request.

### 13. **FUEL MANAGEMENT PLAN**

1. The *Company* shall, not later than three (3) months from the date of this *Approval*, prepare a *Fuel Management Plan* for the *Combustor*. The *Fuel Management Plan* shall include, but not be limited to:
  - a. an identification of the *Oat By-Product Fuel* parameters that will demonstrate the storage quality of the fuel, including particle size range and moisture content;
  - b. for each parameter identified under item (a), a determination of a range of values within which the *Oat By-Product Fuel* will be considered of acceptable quality for storage and combustion at the *Facility*;

- c. a procedure to ensure that the *Oat By-Product Fuel* is tested to ensure that the value for each parameter identified under item (a) is within the range determined under item (b) for the parameter;
- d. a procedure to ensure the *Oat By-Product Fuel* is inspected on a regular basis and that the inspection includes an inspection of the silo and of the fuel feed conveyance system;
- e. a procedure to ensure that fuel not considered acceptable for storage at the *Facility* is rejected and not stored at the *Facility*;
- f. an indication of the maximum time that *Oat By-Product Fuel* may be stored at the *Facility* before it is considered not acceptable for use as a fuel;
- g. a procedure to ensure that *Oat By-Product Fuel* that has been stored at the *Facility* longest is used first as a fuel; and
- h. a procedure to ensure that records are prepared and retained at the *Facility* that set out,
  - i. the quantity of *Oat By-Product Fuel* generated at the *Facility*, and
  - ii. the quantity of *Oat By-Product Fuel* rejected for storage at the *Facility*, in accordance with item (f), and the reasons for the rejection.

2. The *Company* shall immediately implement and maintain the *Fuel Management Plan* and update as necessary.

#### 14. **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.

## 15. NOTIFICATION REQUIREMENTS

1. The *Company* shall notify the *District Manager*, in writing either via email or letter, of each exceedance of the carbon monoxide limit specified in Condition 5.1, within two (2) business days of the exceedance. The notification shall include:
  - a. the moisture content and particle size range of the fuel;
  - b. performance monitoring data required under Conditions 7.1 and 7.2;
  - c. *Continuous Monitoring System* data for all monitored parameters; and
  - d. results of investigation on the cause(s) of the exceedance and remedial action(s) taken if deemed required.
2. The record of the notification shall be retained for a period of not less than three (3) years.
3. The *Company* shall make available upon request by the *District Manager*, operating data of the *Combustor*.

## 16. SUMMARY REPORTS

1. The *Company* shall prepare, once every two (2) years, a Summary Report to summarize the performance and monitoring requirements of the *Combustor* as included in this *Approval*. Each Summary Report shall include:
  - a. For each parameter listed in this *Approval*, for which testing or continuous monitoring is required, the following statistical information:
    - i. The maximum measurement taken over the two-year period;
    - ii. The minimum measurement taken over the two-year period;
    - iii. The average measurement taken over the two-year period;
  - b. A record of all notices required to be given under Condition 15 during the two-year period;
  - c. The dates during the two-year period when *Start-up* or *Shut-down* of the *Combustor* occurred;
  - d. A record of approved fuel management procedures required in Condition 13 and details of instances where these were not followed, if any;



- e. For each pollution control device associated with the *Combustor*, the dates during the two-year period when the device did not operate; and
- f. A record of the results from the bi-annual tune-up required under Condition 12 of this *Approval*.

## 17. 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 10.1 of this *Approval*;
  - f. records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects*;
  - g. all records produced by the *Source Testing*;
  - h. all records produced by the *Continuous Monitoring System*;
  - i. all records related to environmental complaints made by the public as required by Condition 14 of this *Approval*; and
  - j. a copy of the *Fuel Management Plan*.

## 18. REVOCATION 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*.

## 19. ACOUSTIC AUDIT

1. The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*. The *Company*:

- a. shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*;
- b. 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 twelve (12) months after the full implementation of the *Noise Control Measures*.

2. The *Director*:

- a. may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed;
- b. may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director*.

## SCHEDULE A

### Supporting Documentation

- 1. Environmental Compliance Approval Application, dated August 1, 2019, signed by Ken Millard, Embedded Energy Leader and submitted by the *Company*;
- 2. Emission Summary and Dispersion Modelling Report, prepared by Gordon Reusing, GHD and dated August 1, 2019;
- 3. *Acoustic Assessment Report*, prepared by GHD Limited, dated June 19, 2020 and signed by Mike Masschaele; and
- 4. Additional information provided by Jennifer Francis, GHD in an email dated January 17, 2020.

## SCHEDULE B

### PERFORMANCE REQUIREMENTS - IN-STACK EMISSION LIMITS

Parameter	Combustor Emission Limits	Verification of Compliance
Carbon Monoxide	400 ppm <sub>dv</sub> (at 11% oxygen)	Calculated as a rolling arithmetic average of 24 hours of data measured by the <i>Continuous Monitoring System</i>
Total Suspended	50 mg/Rm <sup>3</sup>	Results from compliance <i>Source</i>

Particulate Matter		<i>Testing</i>
Dioxins and Furans	80 pg/Rm <sup>3</sup>	Results from compliance <i>Source Testing</i> ; results expressed as I-TEQ

**Notes:**

- R : Reference flue gas conditions, defined as follows:
  - temperature 25 °C
  - pressure 101.3 kPa
  - oxygen content 11%
  - water content nil (dry conditions)
- mg/Rm<sup>3</sup> : milligrams per cubic metre of gas at Reference conditions.
- pg/Rm<sup>3</sup> : picograms per cubic metre of gas at Reference conditions.
- ppmvd: parts per million by dry volume.
- I-TEQ : a toxicity equivalent concentration calculated using the toxic equivalency factors (I-TEFs) derived for each dioxin and furan congener by comparing its toxicity to the toxicity of 2,3,7,8 tetrachloro dibenzo-p-dioxin, recommended by the World Health Organization (WHO) dioxin toxicity equivalence factors (TEFs) in 2005, and adopted by Ontario in April 2012.

## SCHEDULE C

### *Test Contaminants*

1. Total Suspended Particulate Matter
2. Dioxins and Furans
3. Nitrogen Oxides reported as nitrogen dioxide as per *O. Reg. 419/05*
4. Sulphur Dioxide
5. Benzo(a)pyrene

## 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* required under this *Approval*.
2. The *Company* shall finalize the *Pre-Test Plan* in consultation with the *Manager*.
3. The *Company* shall not commence the *Source Testing* required under this *Approval* until the *Manager* has approved the *Pre-Test Plan*.

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 (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 and equipment operating rate as a percentage of maximum capacity;
    - ii. *Combustor* air pollution control equipment performance metrics;
    - iii. *Facility*/process information related to the operation of the *Combustor*;
  - d. results of *Source Testing*, including the emission rate, emission concentration, and relevant emission factor of the *Test Contaminants* from the *Combustor*;
  - e. a tabular comparison of emission concentrations based on *Source Testing* results compared to performance requirements specified in Schedule B of this *Approval*;
  - f. a tabular comparison of calculated emission rates based on *Source Testing* results for the *Test Contaminants* to relevant estimates described in the *ESDM Report*; and
6. The *Director* may not accept the results of the *Source Testing* if:
  - a. the *Source Testing Code* or the requirement 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 result 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 revision.
8. If the *Source Testing* results are higher than the emission estimates in the *Company's ESDM Report*, the *Company* shall update their *ESDM Report* in accordance with Section 26 of *O. Reg. 419/05* and the *Procedure Document* with the results from the *Source Testing*, not later than three (3) months after the submission of the *Source Testing* report, and make these records available for review by staff of the *Ministry* upon request.

*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. **EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS**

Condition No. 5 is included to provide minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Combustor*.

### 4. **SOURCE TESTING, PERFORMANCE MONITORING and CONTINUOUS**

## **MONITORING**

Conditions No. 6, 7 and 8 are included to require the *Company* to gather accurate information so that compliance with the operating requirements of this *Approval* can be verified.

### **5. DOCUMENTATION REQUIREMENTS**

Condition No. 9 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*.

### **6. REPORTING REQUIREMENTS**

Condition No. 10 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*.

### **7. OPERATION AND MAINTENANCE, BI-ANNUAL TUNE-UP and FUEL MANAGEMENT PLAN**

Conditions No. 11, 12 and 13 are 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.

### **8. COMPLAINTS RECORDING and REPORTING PROCEDURE**

Condition No. 14 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.

### **9. NOTIFICATION REQUIREMENTS**

Condition No. 15 is included to require the *Company* to notify staff of the *Ministry* so as to assist the *Ministry* with the review of the site's compliance.

### **10. SUMMARY REPORTS**

Condition No. 16 is included to require the *Company* to provide information to the *Ministry*, to assist the *Ministry* with the review of the site's compliance with the *EPA*, the regulations and this *Approval*.

### **11. RECORD KEEPING REQUIREMENTS**

Condition No. 17 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.

## 12. **REVOCAION OF PREVIOUS APPROVALS**

Condition No. 18 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*.

## 13. **ACOUSTIC AUDIT**

Condition No. 19 is included to require the *Company* 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 this *Approval* can be verified.

*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.

*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

AND

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

AND

The Director appointed for the purposes of  
Part II.1 of the Environmental Protection Act  
Ministry of the Environment, Conservation  
and Parks

**\* 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 14th day of July, 2020

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

KS/  
c: District Manager, MECP Peterborough  
Gordon Reusing, GHD Ltd.