

Ministry of the Environment, Conservation and Parks Ministère de l'Environnement, de la Protection de la nature et des Parcs

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 4603-C62RCV Issue Date: September 23, 2021

Index Energy Ajax Corporation 170 Mills Road Ajax, Ontario L1S 2H1

Site Location: 170 Mills Road Ajax Town, Regional Municipality of Durham

You have applied under section 20.2 of Part II.1 of the <u>Environmental Protection Act</u>, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

Description Section

A facility producing steam and electricity, consisting of the following processes and support units:

- one (1) bubbling fluidized bed boiler system, firing a maximum of 570 dry tonnes per day of Wood Fuel. The boiler is equipped with a pulse jet fabric filter, with 4440 square metres of Polyimide / Polytetrafluorethylene filter material, or equivalent, discharging into the atmosphere via a stack having an exit diameter of 2.74 metres, extending 30.5 metres above the roof and 45.8 metres above grade;
- one (1) high-pressure turbine and two (2) low-pressure turbines, generating a maximum of 25 Megawatts of electricity;
- one (1) natural gas fired boiler, having a maximum heat input of 78 Gigajoules per hour, discharging into the air via a stack having an exit diameter of 1.22 metres, extending 15.3 metres above the roof and 30.5 metres above grade; and
- two (2) four cell cooling towers.

including the Equipment and any other ancillary and support processes and activities, operating at a Facility Production Limit of up to 25 Megawatts of electricity, discharging into the air as described in the Original ESDM Report.

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

- "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 Gordon Reusing / GHD Limited and dated August 20, 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 5 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. "Building Code Act, 1992" means the Building Code Act, S.O. 1992, c.23, as amended and any replacement or successor legislation;
- 11. "Combustor" means the bubbling fluidized bed boiler and all associated Equipment as described in the Original ESDM Report and the Description Section of this Approval;
- 12. "Company" means Index Energy Ajax Corporation 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;
- "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;
- 14. "Continuous Monitoring Plan" means a document that describes the Continuous Monitoring System that the Company will use for continuous monitoring;
- 15. "Continuous Monitoring System" means the continuous monitoring equipment, data acquisition system and associated operating, maintenance, verification and auditing procedures described in the Continuous Monitoring Plan;
- 16. "Date of Commissioning" means the first day on which the Combustor is fired using Wood Fuel to generate steam or electricity;
- 17. "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;
- 18. "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;
- 19. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;

- 20. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
- 21. "Environmental Assessment Act" means the Environmental Assessment Act, R.S.O. 1990, c.E.18;
- 22. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
- 23. "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;
- 24. "Equipment with Specific Operational Limits" means the bubbling fluidized bed boiler system, the natural gas fired 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;
- 25. "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;
- 26. "Facility" means the entire operation located on the property where the Equipment is located;
- 27. "Facility Production Limit" means the production limit placed by the Director on the main product(s) or raw materials used by the Facility;
- 28. "Fuel Management Plan" means a document or a set of documents prepared by the Company to provide written instructions to staff of the Company;
- 29. "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;
- 30. "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;

- 31. "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;
- 32. "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;
- 33. "Ministry" means the ministry of the Minister;
- 34. "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;
- 35. "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. It also means the noise control measures outlined in sections 4.2 and 7.2 of the Acoustic Assessment Report;
- 36. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution Local Air Quality, made under the EPA;
- 37. "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 GHD Limited and dated July 7, 2021 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval;
- 38. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;
- 39. "Point of Reception" means Point of Reception as defined by Publication NPC-300;
- 40. "Pre-Test Plan" means a plan for the Source Testing including the information required in Section 5 of the Source Testing Code;
- 41. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
- 42. "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;

- 43. "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;
- 44. "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;
- 45. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
- "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;
- 47. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:
 - Schedule A Supporting Documentation
 - Schedule B Emission Limits;
 - Schedule C Test Contaminants for Source Testing; and
 - Schedule D Source Testing Procedures;
- 48. "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;
- 49. "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;
- 50. "Source Testing" means sampling and testing to measure emissions resulting from operating the Facility under conditions which yield the worst case emissions within the approved operating range of the Facility;
- 51. "Source Testing Code" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended;
- 52. "Test Contaminants" means the contaminants listed in Schedule C;
- 53. "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;
- 54. "Wood Fuel" means fuel comprised of one or more of the following materials: hogged wood fuel, wood chips, Wood Pellets, and Woodwaste;

- 55. "Wood Pellet" means a pellet made from Wood Fuel or Woodwaste;
- 56. "Woodwaste" has the same meaning as in Ontario Regulation 347 R.R.O. 1990, as amended, that is not contaminated with salt or leaded paints/coatings;and
- 57. "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 Emission Limits
 - Schedule C Test Contaminants for Source Testing
 - 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:
 - a. implement prior to the commencement of operation of the Equipment, the Noise Control Measures as outlined in sections 4.2 and 7.2 of the Acoustic Assessment Report;
 - b. ensure, subsequent to the implementation of the Noise Control Measures that the noise emissions from the Facility comply with the limits set in Ministry Publication 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 9, 10, 11, 12, and 13 in this Approval.

5. 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 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 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 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 prior to the Date of Commissioning, 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 five (5) business days 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. EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS

- 1. The Company shall ensure that the Combustor is operated to comply with the following performance requirements:
 - a. The concentrations in the undiluted gas emitted from the Combustor stack shall not be greater than the emission limits specified in Schedule B attached to this Approval.
 - b. the concentration of oxygen in the undiluted gas emitted from the combustion chamber of the Combustor shall not be less than 4 per cent by volume on a 3-hour rolling average and dry basis;
 - c. the concentration of carbon monoxide in the undiluted gas emitted from the Combustor shall not be greater than 400 parts per million on a dry basis, 24-hour rolling averaging; and
 - d. only Wood Fuel as defined by this Approval is used as 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 one (1) second.
- 3. Conditions 9.1(b), 9.1(c) and 9.2 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 12 hours;
 - b. the Start-up does not last for more than 24 hours;

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.

10. SOURCE TESTING

 The Company shall perform Source Testing every (4) years in accordance with the procedure outlined in Schedule D, to determine the rates of emissions of the Test Contaminants listed in Schedule C from the Combustor. The first Source Testing program shall be conducted within one (1) year of the Date of Commissioning.

11. CONTINUOUS MONITORING

- 1. The Company shall submit, to the Manager, not later than sixty (60) days prior to the Date of Commissioning, a Continuous Monitoring Plan for the Continuous Monitoring System that will continuously monitor and record the operating temperatures of the Combustor, the carbon monoxide and the oxygen concentrations in the undiluted gasses leaving 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
 - 1. 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.

12. BI-ANNUAL TUNE-UP

- The Company shall conduct, within two (2) years of the Date of Commissioning 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; and
 - v. grates or burners.
 - 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; and
 - iv. review calibration data and performance of the continuous monitoring system.
 - 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 prior to the Date of Commissioning, prepare a Fuel Management Plan for the Combustor. The Fuel Management Plan shall include, but not be limited to:
 - a. a list of the types of Wood Fuel that may be stored at the Facility;
 - b. for each type of Wood Fuel listed in item (a), an identification of the parameters that will demonstrate the storage quality of the fuel, including size and moisture content;
 - c. for each parameter identified under item (b), a determination of a range of values within which the Wood Fuel will be considered of acceptable quality for storage at the Facility;
 - d. a procedure to ensure that the Wood Fuel is tested to ensure that the value for each parameter identified under item (b) is within the range determined under item (c) for the parameter;
 - e. a procedure to ensure the Wood Fuel is inspected on a regular basis and that the inspection includes an inspection of the pile and of the feed system;
 - f. a procedure to ensure that fuel not considered acceptable for storage at the Facility is rejected and not stored at the Facility;
 - g. an indication of the maximum time that Wood Fuel may be stored at the Facility;
 - h. a pile turn-over procedure to ensure that Wood Fuel that has been stored at the Facility longest is used first; and
 - i. a procedure to ensure that records are prepared and retained at the Facility that set out,
 - i. the quantity of Wood Fuel purchased by the Facility and the source from which it was purchased,
 - ii. the quantity of Wood Fuel generated at the Facility, and
 - iii. the quantity of Wood 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. 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 9.1, within two (2) business days of the exceedance. The notification shall include:
 - a. the type and source of wood being processed;
 - b. the moisture content of the material;
 - c. pollution control device parameters;
 - d. Continuous Monitoring System data for all monitored parameters; and
 - e. 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.

15. SUMMARY REPORTS

- 1. The Company shall prepare, once every two (2) years after the Date of Commissioning, 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 14 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.

16. 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. 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;
 - g. all records produced by the Source Testing;
 - h. copy of the Continuous Monitoring Plan and all records produced by the Continuous Monitoring System;
 - i. all records related to environmental complaints made by the public as required by Condition 8 of this Approval; and
 - j. a copy of the Fuel Management Plan.

17. 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 issuance of an above grade building permit under the Building Code Act, 1992, for a building containing residential uses on the lands zoned "DCA/MU Downtown Central Area Residential Mixed Use Zone" located along the south-side of Hunt Street between Commercial Avenue and Monarch Avenue.
- 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.

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.

SCHEDULE A

Supporting Documentation

- 1. Environmental Compliance Approval Application, dated November 24, 2020, signed by Mark Seely and submitted by the Company;
- 2. Emission Summary and Dispersion Modelling Report, prepared by GHD Limited and dated July 7, 2021;
- 3. Additional information provided by Gord Reusing of GHD Limited in the emails dated April 19, 2021 and July 9, 2021; and
- 4. Acoustic Assessment Report, prepared by GHD Limited, dated August 20, 2020 and signed by Gordon Reusing.

SCHEDULE B

Emission Limits

Emission Limits for the Bubbling Fluidized Bed Boiler System

PARAMETER	LIMIT (see note 1)	
Nitrogen Oxides (see note 2)	198 mg/Rm ³	
Total Suspended Particulate Matter	20 mg/Rm^3	
Dioxins, Furans, and Dioxin-like PCBs (toxic equivalent)	80 pg/Rm ³	
Hydrogen Chloride	35 mg/Rm ³	
Lead	60 ug/Rm^3	
Sulphur Dioxide	65 mg/Rm ³	
Mercury	20 ug/Rm^3	
Cadmium	7 ug/Rm ³	

Notes

- 1. On a dry basis, normalized to 11 per cent oxygen at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals.
- 2. "Nitrogen Oxides" means oxides of nitrogen, including nitric oxide (NO) and nitrogen dioxide (NO2).

SCHEDULE C

Test Contaminants for Source Testing

- Total suspended particulate matter
- Nitrogen oxides
- Sulphur dioxide
- Hydrogen chloride
- Chromium (total and hexavalent)
- Lead
- Mercury
- Cadmium
- Dioxins, Furans and Dioxin-like PCBs
- 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 until the Manager has approved the Pre-Test Plan.
- 4. The Company shall complete the first Source Testing within one (1) year of the Date of Commissioning and the Company shall complete subsequent Source Testing every four (4) calendar years thereafter.
- 5. 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.
- 6. 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:
 - 1. an executive summary;
 - 2. an identification of the applicable North American Industry Classification System code (NAICS) for the Facility;
 - 3. all records of the operating conditions, including the feed rate, the moisture content and the source of the Wood Fuel, and the operating capacities of the Combustor;
 - 4. all records produced by the Continuous Monitoring System;
 - 5. results of Source Testing, including the emission rate, emission concentration, and relevant emission factor of the Test Contaminants from the Combustor; and
 - 6. a tabular comparison of calculated emission rates and emission concentrations based on Source Testing results for the Test Contaminants to relevant estimates described in the ESDM Report.
- 7. The Director may not accept the results of the Source Testing if:
 - 1. the Source Testing Code or the requirement of the Manager were not followed;
 - 2. the Company did not notify the Manager, the District Manager and Director of the Source Testing; or

- 3. the Company failed to provide a complete report on the Source Testing.
- 8. 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.

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 on-going 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 BI-ANNUAL TUNE-UP AND FUEL MANAGEMENT PLAN

Conditions No. 7, 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.

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. EQUIPMENT WITH SPECIFIC OPERATING CONDITIONS

Condition No. 9 is included to provide minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Combustors.

8. SOURCE TESTING AND CONTINUOUS MONITORING

Conditions No. 10 and 11 are included to require the Company to gather accurate information so that compliance with the operating requirements of this Approval can be verified.

9. NOTIFICATION REQUIREMENTS

Condition No. 14 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. 15 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. 16 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. ACOUSTIC AUDIT

Condition No. 17 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.

13. REVOCATION 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.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 4870-BLQRX8 issued on April 27, 2020

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 <u>Environmental Bill of</u> <u>Rights, 1993</u>, 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	<u>AND</u>	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

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 23rd day of September, 2021

Sungel RfL

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

SM/

c: District Manager, MECP York-Durham Gordon Reusing, GHD Limited