

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5888-BVFRBU

Issue Date: July 19, 2021

Industries Rayonier A.M. Canada Inc./Rayonier A.M. Canada Industries Inc. and
Rayonier A.M. Canada Enterprises Inc./Entreprises Rayonier A.M. Canada Inc.
operating as Rayonier A.M. Canada G.P.
4 Place Ville-Marie Rd, No. 100
Montreal, Quebec
H3B 2E7

Site Location: 1 Government Road, Kapuskasing, District of Cochrane, Ontario.

*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 newsprint production facility, consisting of the following processes and support units:

- thermo-mechanical pulp mill;
- paper (newsprint) mill;
- sawmill operations;
- planer mill operations;
- truck loading;
- bark piles and bark handling;
- chip handling and chip piles;
- paint spraying;
- maintenance shop;
- packaging / shipping;
- waste water treatment operations;
- one (1) diesel power generator, rated at 1250 kilowatts, equipped with a Diesel Emission Reduction System complete with an oxidation catalyst and a Diesel Particulate Filter (DPF) upstream of a Selective Catalytic Reduction (SCR) catalyst, operated in non-emergency situations; and
- fourteen (14) diesel power generators, each rated at 1200 kilowatts, equipped with a Diesel Emission Reduction System complete with an oxidation catalyst and a

Diesel Particulate Filter (DPF) upstream of a Selective Catalytic Reduction (SCR) catalyst, operated in non-emergency situations;

- two (2) wood kilns heated by steam only and exhausting fugitively to the air;
- two (2) natural gas fired boilers (Boilers No. 3 and No. 4), having a combined maximum heat input of 389 million kilojoules per hour, both discharging into the air through a common stack, designated as the North Stack, having an exit diameter of 3.66 metres and extending 67 metres above grade;
- one (1) natural gas fired boiler (Boiler No. 5), having a maximum heat input of 205 million kilojoules per hour, exhausting into the air through a stack, designated as the South Stack, having an exit diameter of 4.57 metres and extending 69 metres above grade;
- one (1) wood combustion system comprised of the following:
 - three (3) *Wood Combustors* firing *Clean Wood Based Fuels* as described in Schedule C, supplying combustion gases to a designated process steam boiler (boilers No. 9, No. 10, and No. 11);
 - each of the three (3) boilers is equipped with one (1) natural-gas fired burner having a maximum heat input of 143 million kilojoules per hour, to provide back-up fuel capabilities;
 - each of the three (3) boilers exhausts to a twin-cyclone collector pre-cleaner and discharging into the air at a volumetric flow rate of 51.6 nominal cubic metres per second through a common single chamber, three-field *Electrostatic Precipitator* and a stack, designated as NB-1, having an exit diameter of 2.4 metres and extending 44.3 metres above grade;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to :

- 1,080 tonnes of thermo-mechanical pulp produced per day;
- 1,240 tonnes of newsprint produced per day;
- 160 million board feet of lumber produced 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 Jakub Wrobel / O2E Inc. and dated February 23, 2021, 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. "*Best Management Practices Plan*" means a document or a set of documents which describe measures to minimize dust emissions from the *Facility* and/or *Equipment*;
11. "*CEM System*" means the continuous monitoring and recording systems used to measure and record the parameters specified in the attached Schedule D;
12. "*Clean Wood Based Fuels*" means the wood wastes listed in Schedule C that meet the definition in Regulation 347 of the *EPA* and are not contaminated with salt or leaded paints/coatings;
13. "*Company*" means Industries Rayonier A.M. Canada Inc./Rayonier A.M. Canada Industries Inc. and Rayonier A.M. Canada Enterprises Inc./Entreprises Rayonier A.M. Canada Inc. operating as Rayonier A.M. Canada G.P. 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*;
14. "*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;
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. "*Electrostatic Precipitator*" means the electrostatic precipitator described in the *Company's* application, this *Approval* and in the supporting documentation referred to herein, to the extent approved by this *Approval*;
21. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
22. "*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;

23. "*Equipment with Specific Operational Limits*" means the *Wood Combustors*, the *Power Generators*, 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*;
24. "*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*;
25. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
26. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*;
27. "*Fuel Management Plan*" means a document or a set of documents which describe measures to ensure that fuels being supplied to the *Wood Combustors* are appropriate and are managed in a manner that maintains the quality and characteristics of the fuels;
28. "*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*;
29. "*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;
30. "*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*;
31. "*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;

32. "*Ministry*" means the ministry of the *Minister*;
33. "*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*;
34. "*Nitrogen oxides*" means oxides of nitrogen, including nitric oxide (NO) and nitrogen dioxide (NO₂);
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 the *Acoustic Assessment Report*;
36. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
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 O2E Inc. and dated March 3, 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. "*Performance Data*" means all records and information related to or resulting from the recording activities required by this *Approval*;
39. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05*;
40. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300*;
41. "*Power Generators*" means one (1) diesel power generator rated at 1250 kilowatts and fourteen (14) diesel power generators, each rated at 1200 kilowatts, operated in non-emergency situations described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
42. "*Pre-Test Plan*" means a plan for the *Source Testing* including the information required in Section 5 of the *Source Testing Code*;
43. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
44. "*Process Outages*" means the process changes that reduce the demand for heat

from the *Wood Combustors*;

45. "*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*;
46. "*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;
47. "*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;
48. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
49. "*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;
50. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
 - Schedule A - Supporting Documentation
 - Schedule B - *Source Testing* Procedures.
 - Schedule C - Sources of *Clean Wood Based Fuels* and Feed Rates
 - Schedule D - Continuous Monitoring Requirements.
51. "*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;
52. "*Source Testing*" means site-specific sampling and testing to measure emissions resulting from operating the targeted sources 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 targeted sources which satisfies paragraph 1 of subsection 11(1) of *O. Reg. 419/05*;
53. "*Source Testing Code*" means the Ontario Source Testing Code, dated June

2010, prepared by the *Ministry*, as amended;

54. "*Start-up*" means an operating condition during which the operation of the *Wood Combustors* is increased from an inoperative state to normal operating conditions;
55. "*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;
56. "*Wood Combustors*" means the three (3) wood combustors firing *Clean Wood Based Fuels*, associated with the steam boilers, described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*; 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 - *Source Testing* Procedures
 - Schedule C - Sources of *Clean Wood Based Fuels* and Feed Rates
 - Schedule D - Continuous Monitoring Requirements.

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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. at all times, ensure that the noise emissions from the *Facility* comply with the limits set in *Ministry Publications NPC-300*; and
 - b. 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 Condition 10 in this *Approval*.

5. DOCUMENTATION REQUIREMENTS

1. The *Company* shall maintain an up-to-date *Log*.
2. No later than March 31 in each year, the *Company* shall update the *Acoustic Assessment Report* and shall update the *ESDM Report* in accordance with section 26 of *O. Reg. 419/05* so that the information in the reports is accurate as of December 31 in the previous year.
3. The *Company* shall make the *Emission Summary Table* (see section 27 of *O. Reg. 419/05*) and *Acoustic Assessment Summary Table* available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the *Facility*.
4. The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval*, update the *ESDM Report* and the *Acoustic Assessment Report* such that the information in the reports is accurate as of the date that Condition 2.1 of this *Approval* expired.
5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. REPORTING REQUIREMENTS

1. Subject to Condition 6.2, the *Company* shall provide the *Director* no later than June 30 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:

- a. a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval*;
- b. a summary of each *Modification* satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception*.

2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. OPERATION AND MAINTENANCE

1. The *Company* shall prepare and implement, not later than three (3) months from the date of this *Approval*, operating procedures and maintenance programs for all *Processes with Significant Environmental Aspects*, which shall specify as a minimum:

- a. frequency of inspections and scheduled preventative maintenance;
- b. procedures to prevent upset conditions;
- c. procedures to minimize all fugitive emissions;
- d. procedures to prevent and/or minimize odorous emissions, including continuing to implement and update the *Best Management Practices Plan* for the control of fugitive dust emissions;
- e. procedures to prevent and/or minimize noise emissions; and
- f. procedures for record keeping activities relating to the operation and maintenance programs.

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

8. COMPLAINTS RECORDING AND REPORTING

1. If at any time, the *Company* receives an environmental complaint from the public regarding the operation of the *Equipment* approved by this *Approval*, the *Company* shall take the following steps:
 - a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.

- b. Notify the *District Manager* of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the *District Manager*.
- c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
- d. Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

9. RECORD KEEPING REQUIREMENTS

1. Any information requested by any employee in or agent of the *Ministry* concerning the *Facility* and its operation under this *Approval*, including, but not limited to, any records required to be kept by this *Approval*, shall be provided to the employee in or agent of the *Ministry*, upon request, in a timely manner.
2. Unless otherwise specified in this *Approval*, the *Company* shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this *Approval*, including,
 - a. a copy of the *Original ESDM Report* and each updated version;
 - b. a copy of each version of the *Acoustic Assessment Report*;
 - c. supporting information used in the emission rate calculations performed in the *ESDM Reports* and *Acoustic Assessment Reports*;
 - d. the records in the *Log*;
 - e. copies of each *Written Summary Form* provided to the *Ministry* under Condition 6.1 of this *Approval*;
 - f. records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects*; and
 - g. all records related to environmental complaints made by the public as required by Condition 8 of this *Approval*.

10. EQUIPMENT WITH SPECIFIC REQUIREMENTS - WOOD COMBUSTORS.

1. PERFORMANCE REQUIREMENTS

The *Company* shall ensure, that the *Wood Combustors* are designed and operated to comply, at all times, with the following operational and performance requirements:

- a. The concentration of oxygen in the undiluted gas emitted from the *Wood*

- Combustors*, as measured and recorded by the *CEM System*, shall not be less than 4 per cent by volume on a 3-hour rolling average and dry basis;
- b. The 10-day rolling average concentration of carbon monoxide in the undiluted gases emitted from the *Wood Combustors*, as measured and recorded by the *CEM System*, shall not exceed 500 parts per million by volume, on a dry basis normalized to 11 percent oxygen at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals;
 - c. The in-stack concentration of total suspended particulate matter, in the undiluted gases leaving the *Electrostatic Precipitator* associated with the *Wood Combustors*, shall not exceed 120 milligrams per dry cubic metre normalized to 11 percent oxygen at reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals.
 - d. The *Company* shall take reasonable steps to ensure that the operation of the *Wood Combustors* meet the following targets:
 - i. the temperature of the combustion gases prior to the convection section of the boiler is at least 850 degrees Celsius; and
 - ii. the residence time, of the combustion gases prior to the convection section of the boiler, is not less than two (2) seconds.
 - e. Only *Clean Wood Based Fuels*, as described in Schedule C of this *Approval*, are used in the *Wood Combustors*.
 - f. Requirements in sections a, b, c and d do not apply during the *Start-up* and *Shut-down* periods of the *Wood Combustors* if,
 - i. the *Shut-down* does not last for more than 6 hours,
 - ii. the *Start-up* does not last for more than 24 hours, and
 - iii. 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.

2. NOTIFICATION REQUIREMENTS

- a. 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 10.1.b, within five (5) business days of the exceedance. The notification shall include:
 - i. The type of wood being processed;

- ii. The moisture content of the material;
- iii. Pollution control device parameters;
- iv. Continuous emission monitor data; and
- v. Results of investigation on the cause(s) of the exceedance and remedial action(s) taken if deemed required.

b. The *Company* shall make available upon request by the *District Manager* Performance Data of the *Wood Combustors*.

3. **CONTINUOUS MONITORING**

The *Company* shall continue to conduct and maintain a program to continuously monitor the concentration of oxygen and carbon monoxide in the undiluted gas emitted from the *Wood Combustors*, and the temperature of the hot combustion gases in the *Wood Combustors*. The *Continuous Monitoring System* shall be equipped with continuous recording devices and shall comply with the requirements outlined in the attached Schedule D.

4. **SOURCE TESTING**

The *Company* shall perform *Source Testing*, in accordance with the procedures outlined in Schedule B, to determine the rate of emission of Total Suspended Particulate Matter and Benzo-a-Pyrene from the *Wood Combustors*, not later than July 1, 2022 and every four (4) years thereafter.

5. **BI-ANNUAL TUNE-UP OF THE WOOD COMBUSTORS**

The *Company* shall conduct, within three (3) months from the date of this *Approval* and repeat every two (2) years thereafter, a tune-up of the *Wood Combustors* 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. air dampers
- iv. air measurement devices
- v. grates or burners

b. Review of equipment performance including:

- i. carbon monoxide and oxygen data
- ii. airflow data

- iii. steam flow to bark data
 - iv. air to fuel ratio data and verify operating within design criteria
 - v. calibration data and performance of the *Continuous Monitoring System*
- c. Conduct combustion test, including:
- i. visual observation of combustion
 - ii. monitor and adjust excess air ratio
 - iii. monitor oxygen and carbon monoxide data
- d. 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.

6. FUEL MANAGEMENT

The *Company* shall continue to implement, maintain and update as necessary the *Fuel Management Plan*. 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, an identification of the parameters that will demonstrate the storage quality of the wood fuel, including size and moisture content.
- c. For each parameter identified under each fuel, 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 and that the value for each parameter identified under each fuel is within the range determined to be considered of acceptable quality 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 wood 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 a wood fuel may be stored at the *Facility*.
- h. A pile turn-over procedure to ensure that wood fuel that have been stored at the *Facility* longest is used first.
- 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* and the reasons for the rejection.

7. SUMMARY REPORTS

The *Company* shall prepare, once every two (2) years, a Summary Report to summarize the performance and monitoring requirements included in this *Approval*. Each Summary Report shall include:

- a. For each parameter listed in this *Approval* 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 in condition 10.2 to be given during the two-year period.
- c. The dates during the two-year period when *Start-up* or *Shut-down* of the *Wood Combustors* occurred.
- d. A record of approved *Fuel Management* procedures and details of instances where these were not followed, if any.
- e. For each pollution control device associated with the *Wood Combustors*, including the multicyclone dust collectors, the electrostatic precipitator and the *CEM System*, the dates during the two-year period when the

device did not operate.

- f. A record of the results from the bi-annual tune-up required in this *Approval*.

11. EQUIPMENT WITH SPECIFIC REQUIREMENTS - POWER GENERATORS.

1. The *Company* shall ensure that the *Power Generators* are designed and operated to comply, at all times during normal operating conditions, and not during start-up, with the following performance requirements:
 - a. The emissions of *Nitrogen Oxides* in the gases emitted from the exhaust stack of the *Power Generators* are not greater than 0.4 kilograms per Megawatt-hour;
 - b. The emissions of particulate matter in the gases emitted from the exhaust stack of the *Power Generators* are not greater than 0.02 kilograms per Megawatt-hour;
 - c. The emissions of Total Hydrocarbons (excluding methane) in the gases emitted from the exhaust stack of the *Power Generators* are not greater than 0.19 kilograms per Megawatt-hour;
 - d. The emissions of carbon monoxide in the gases emitted from the exhaust stack of the *Power Generators* are not greater than 3.5 kilograms per Megawatt-hour.
2. The *Company* shall perform *Source Testing* in accordance with the procedures outlined in the attached Schedule B, to determine the rate of emission of *Nitrogen Oxides*, particulate matter, Total Hydrocarbons (excluding methane) and carbon monoxide, from a representative unit of the *Power Generators*, selected on a random and rotational basis. not later than three months (3) after the commencement of operation of the *Power Generators*, and every two (2) calendar years thereafter.

12. 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 date of this *Approval*.

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*.

13. **REVOCAION OF PREVIOUS APPROVALS**

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

SCHEDULE A

Supporting Documentation

1. Environmental Compliance Approval Application, dated August 17, 2020, signed by Chris Black and submitted by the *Company*.
2. Emission Summary and Dispersion Modelling Report, prepared O2E Inc. and dated March 3, 2021; and
3. *Acoustic Assessment Report* prepared by O2E Inc., dated February 23, 2021 and signed by Jakub Wrobel.

SCHEDULE B

Source Testing Procedures

1. The *Company* shall submit, not later than two (2) months prior to the targeted date for the *Source Testing*, to the *Manager* a *Pre-Test Plan* for the *Source Testing* required under this *Approval*. The *Company* shall finalize the *Pre-Test Plan* in consultation with the *Manager*.
2. The *Company* shall not commence the *Source Testing* required under this *Approval* until the *Manager* has approved the *Pre-Test Plan*.
3. The *Company* shall 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*.
4. 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. records of operating conditions at the time of *Source Testing*, including but not limited to the following:
 - a. production data and equipment operating rate as a percentage of maximum capacity;
 - b. *Facility*/process information related to the operation of the targeted sources; including all records produced by the applicable continuous monitoring systems;
 - c. description of the emission sources controlled by the targeted sources at the time of testing;
4. results of *Source Testing*, including the emission rate, emission concentration, and relevant emission factor of the subject test contaminants from the targeted sources;
5. a tabular comparison of calculated emission rates and emission factors based on *Source Testing* results for the subject test contaminants to relevant estimates described in the *ESDM Report*;
6. the results of dispersion calculations using the results of *Source Testing* to estimate emissions from the targeted sources in accordance with O. Reg. 419, indicating the maximum concentrations of the subject test contaminants at the Point of Impingement .

5. 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*.

6. 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 *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* if any of the calculated emission factors or calculated emission rates are higher than the predicted rates in the *ESDM report*, 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.

SCHEDULE C

Sources of Clean Wood Based Fuels and Feed Rates

Sources of Clean Wood Based Fuels	Maximum Total Feed Rate (Tonnes Per Day, As Fired)
On-site generated wood waste	436
On-site generated core waste	0.5
Combined sludge, including waste from primary clarifier, secondary clarifier, and deinking plant	270
Off-site wood waste	500
TOTAL	1,206.5

SCHEDULE D

CONTINUOUS MONITORING SYSTEM

PARAMETER: Temperature

LOCATION:

The sample point for the continuous temperature monitoring and recording system shall be installed at a location where the measurements are representative of the minimum temperature of the undiluted gases leaving the combustion chamber of the *Wood Combustors*.

PERFORMANCE:

The Continuous Temperature Monitoring system shall meet the following minimum performance specifications for the following parameters.

PARAMETERS	SPECIFICATION
Type	shielded "K" type thermocouple, or equivalent
Accuracy	± 5 degrees Celsius
Response Time (95%)	60 sec. (max)

RECORDER:

The recorder must be capable of registering continuously the measurement of the monitoring system without a significant loss of accuracy and with a time resolution of 5 minutes or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time on a monthly basis, when the Equipment is in operation.

PARAMETER: Oxygen

INSTALLATION:

The Continuous Oxygen Monitor shall be installed at an accessible location where the measurements are representative of the actual concentration of oxygen in the undiluted gases leaving the *Wood Combustors* and shall meet the following installation specifications.

PARAMETERS	SPECIFICATION
Range (percentage)	0 to 20 or 0 to 25
Calibration Gas Ports	close to the sample point

PERFORMANCE:

The Continuous Oxygen Monitor shall meet the following minimum performance specifications for the following parameters.

PARAMETERS	SPECIFICATION
Relative Accuracy	+/- 10 percent
Calibration Error (percent of actual concentration)	5 maximum
Zero drift (2-hour) (percent oxygen)	0.4 maximum
Zero drift (24-hour) (percent oxygen)	0.5 maximum
Calibration drift (2-hour) (percent oxygen)	0.4 maximum

Span Calibration Drift (24-hour) (percent oxygen)	0.5 maximum
Response Time (minutes to 95 percent response to a step change)	5 maximum
Operational Test Period (hours)	168 hours minimum without corrective maintenance

CALIBRATION:

The monitor shall be calibrated daily, to ensure that it meets the specifications quoted above, during all periods of the operation of the Equipment. The results of all calibrations shall be recorded at the time of calibration.

DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor with an accuracy of 0.5 percent of a full scale reading or better and with a time resolution of 15 minutes or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time on a monthly basis when the Equipment is in operation.

PARAMETER: Carbon Monoxide

INSTALLATION:

The Continuous Carbon Monoxide Monitor shall be installed at an accessible location where the measurements are representative of the actual concentration of carbon monoxide in the undiluted gases leaving the *Wood Combustors* and shall meet the following installation specifications.

PARAMETERS	SPECIFICATION
Range (parts per million, ppm)	0 to 1,000
Calibration Gas Ports	close to the sample point

PERFORMANCE:

The Continuous Carbon Monoxides Monitor shall meet the following minimum performance specifications for the following parameters.

PARAMETERS	SPECIFICATION
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Relative Accuracy	+/- 10 percent
Calibration Error (percent of actual concentration)	5 maximum
Zero drift (2-hour) (percent CO)	4 maximum
Zero drift (24-hour) (percent CO)	5 maximum
Calibration drift (2-hour) (percent CO)	4 maximum
Span Calibration Drift (24-hour) (percent CO)	5 maximum
Response Time (minutes to 95 percent response to a step change)	5 maximum
Operational Test Period (hours)	168 hours minimum without corrective maintenance

CALIBRATION:

The monitor shall be calibrated daily, to ensure that it meets the drift limits specified above, during the periods of the operation of the Equipment. The results of all calibrations shall be recorded at the time of calibration.

DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor with an accuracy of 0.5 percent of a full scale reading or better and with a time resolution of 15 minutes or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time on a monthly basis, when the Equipment is in operation.

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

1. GENERAL

Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the Supporting Documentation in Schedule A considered by the *Director* in issuing this *Approval*.

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

Conditions No. 2, 3 and 4 are included to limit and define the *Modifications*

permitted by this *Approval*, and to set out the circumstances in which the *Company* shall request approval of an *Acceptable Point of Impingement Concentration* prior to making *Modifications*. The holder of the *Approval* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit*. In return for the operational flexibility, the *Approval* places performance based limits that cannot be exceeded under the terms of this *Approval*. *Approval* holders will still have to obtain other relevant approvals required to operate the *Facility*, including requirements under other environmental legislation such as the *Environmental Assessment Act*.

3. DOCUMENTATION REQUIREMENTS

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

4. REPORTING REQUIREMENTS

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

5. OPERATION AND MAINTENANCE

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

6. COMPLAINTS RECORDING AND REPORTING PROCEDURE

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

7. RECORD KEEPING REQUIREMENTS

Condition No. 9 is included to require the *Company* to retain all documentation related to this *Approval* and provide access to employees in or agents of the *Ministry*, upon request, so that the *Ministry* can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this *Approval* is necessary.

8. EQUIPMENT WITH SPECIFIC REQUIREMENTS - WOOD COMBUSTORS

Condition No. 10 is included to require the *Company* to provide the minimum performance and operational requirements considered necessary to prevent an adverse effect resulting from the operation of the *Wood Combustors*.

9. EQUIPMENT WITH SPECIFIC REQUIREMENTS - POWER GENERATORS

Condition No. 11 is included to require the *Company* to provide the minimum performance and operational requirements considered necessary to prevent an adverse effect resulting from the operation of the *Power Generators*.

10. ACOUSTIC AUDIT

Condition No. 12 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.

11. REVOCATION OF PREVIOUS APPROVALS

Condition No. 13 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). 8400-AHJS4D issued on March 31, 2017.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

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

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

The Notice should also include:

1. The name of the appellant;

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

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

This Notice must be served upon:

The Secretary* Environmental Review Tribunal 655 Bay Street, Suite 1500 Toronto, Ontario M5G 1E5	AND	The Minister of the Environment, Conservation and Parks 777 Bay Street, 5th Floor Toronto, Ontario M7A 2J3	AND	The Director appointed for the purposes of Part II.1 of the Environmental Protection Act Ministry of the Environment, Conservation and Parks 135 St. Clair Avenue West, 1st Floor Toronto, Ontario M4V 1P5
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*** 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 19th day of July, 2021

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

QN/
c: District Manager, MECP Timmins
Tim Logan, O2E Inc.