

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 1718-BZ9L2R
Issue Date: April 30, 2021

Weyerhaeuser Company Limited
1000 Jones Road
Post Office Box, No. 1930
Kenora, Ontario
P9N 3X8

Site Location: Kenora Timberstrand Plant (Weyerhaeuser)
1000 Jones Road
Kenora City, District of Kenora

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 laminated strand lumber manufacturing facility, that includes the capability to produce a variety of higher value products **including zinc borate impregnated lumber**, and consisting generally of, but not limited to, the following key process steps (with surge bins and storage tanks), support units and services:

- Log Storage Yard;
- Conditioning Ponds;
- Debarkers;
- Strandars;
- Dryers;
- Screening;
- Blending;
- Mat Forming;
- Hot Pressing;
- Cooling;
- Finishing;
- Warehousing and Shipping;

with the full thermal energy needs of the facility (primarily conditioning ponds, dryers, hot pressing, and building heat) delivered by a **Central Energy System** consisting of:

- one (1) fuel metering and feed system for wet and dry Wood-Based Fuel comprised of a wet fuel bin, a dry fuel bin and a fuel feed system designed to meter a mixture of dry and wet fuel into the fluid bed zone at a rate dictated by the combustion control system;
- pneumatic system for the injection of CoMate ash modifier into the combustion zone of each fluidized bed wood combustor at a combined maximum rate of 726 kilograms of ash modifier per day; and
- one (1) wood combustion system with a maximum fuel input of 52,200 kilograms per hour of Wood-Based Fuel, comprised of two (2) fluidized bed wood combustors, designated as fluidized bed wood combustor number 1 (FBC No.1) and fluidized bed wood combustor number 2 (FBC No.2), each equipped with the following:
 - one (1) refractory lined fluidized bed wood combustor, having an internal volume of approximately 35 cubic metres and equipped with a bed removal, screening and recirculation system;
 - one (1) refractory lined secondary combustion chamber, having an internal volume of approximately 462 cubic metres;
 - a combustion air system with two (2) forced draft fans, having an approximate total capacity of 30.4 actual cubic metres per second at 35 degrees Celsius that supplies primary underfire air and secondary overfire air to the combustor bed chamber and tertiary air to the secondary combustion chamber and is equipped with variable frequency drives (VFD);
 - one bypass stack located on the combustor, having an inside diameter of 0.91 metres and extending 33.3 metres above grade;
 - one (1) induced draft fan, having an approximate capacity of 65 actual cubic metres per second at 370 degrees Celsius located after the heat exchanger and multiclone;
 - one (1) natural gas fired startup and preheat burner, used to heat the fluidizing air during the initial preheat cycle of the startup, having a maximum thermal input of 15,800,000 kilojoules per hour;
 - one (1) flue gas recirculating fan downstream of the induced draft (ID) fan, designed for 19 actual cubic metres per second, to return gases to secondary combustion chamber as needed for temperature control;

- Gases from each fluidized bed wood combustor exhaust into two (2) strand driers, and one (1) thermal fluid heat exchanger. Each drier has an operating capacity of 10 oven dried tonnes per hour of wood fiber. Gases from the thermal fluid heat exchanger discharge into one (1) dry multiclone and are either recirculated back to the combustor, directed to the driers or directed to an Electrified Filter Bed. Exhaust gases from each drier are directed through one (1) cyclone followed by one (1) induced draft fan prior to discharging into one (1) of two (2) Electrified Filter Beds. The Electrified Filter Beds discharge to the atmosphere at a maximum total volumetric rate of 133.0 cubic metres per second through a single stack having an exit diameter of 2.74 metres extending 54.9 metres above grade and 24.4 metres above the roof.

including the Equipment and any other ancillary and support processes and activities, operating at a Facility Production Limit of up to 510,000 cubic metres of laminated strand lumber per year, as measured at the press, 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. "Approval" means this entire Environmental Compliance Approval and any Schedules to it.;
4. "Basic Comprehensive User Guide" means the Ministry document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;
5. "Company" means Weyerhaeuser Company Limited operating as Weyerhaeuser-Kenora TimberStrand 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;

6. "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;
7. "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;
8. "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;
9. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
10. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
11. "Environmental Assessment Act" means the Environmental Assessment Act, R.S.O. 1990, c.E.18;
12. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
13. "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;
14. "Equipment with Specific Operational Limits" means any Equipment which is part of the Central Energy System 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;
15. "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;
16. "Facility" means the entire operation located on the property where the Equipment is located;
17. "Facility Production Limit" means the production limit placed by the Director on the main product(s) or raw materials used by the Facility;

18. "Log" means a document that contains a record of each change that is required to be made to the ESDM 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;
19. "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;
20. "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;
21. "Ministry" means the ministry of the Minister;
22. "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;
23. "Noise Screening Documents" means the completed Primary Noise Screening Method, or the completed Secondary Noise Screening Method, with supporting information and documentation, as updated in accordance with Condition 5 of this Approval;
24. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution – Local Air Quality;
25. "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 Wood Environment & Infrastructure Solutions and dated July 27, 2020 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval;
26. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;
27. "Primary Noise Screening Method" means the Ministry Primary Noise Screening Method form as described in the "Primary Noise Screening Method Guide", January 31, 2017, as amended;
28. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;

29. "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;
30. "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;
31. "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;
32. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:
 - Schedule A - Supporting Documentation
 - Schedule B - Source Testing
 - Schedule C - Continuous Monitoring
 - Schedule D - Odour Assessment;
33. "Secondary Noise Screening Method" means the Ministry Secondary Noise Screening Method form as described in the "Secondary Noise Screening Method Guide", January 31, 2017, as amended;
34. "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;
35. "Source Testing" means sampling and testing to measure emissions resulting from operating the equipment at a level of maximum production within the approved operating range of the equipment;
36. "Source Testing Code" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended;
37. "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;
38. "Test Contaminants" means those contaminants set out in Schedule B of this Approval;
39. "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;

40. "Wood-Based Fuel" means the wood wastes generated at the Facility, consisting of raw or pure wood, with an average moisture content of 50 per cent by weight and may contain product residuals treated with an average of one percent zinc borate by weight, and wood wastes generated off site originating from the processing of clean logs; and
41. "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
 - Schedule C - Continuous Monitoring
 - Schedule D - Odour Assessment

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 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, at all times, ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.
4. The Company shall, at all times, ensure that the vibration emissions from the Facility comply with the limits set out in Ministry Publication NPC-207.
5. The Company shall operate any Equipment with Specific Operational Limits approved by this Approval in accordance with the Original ESDM Report and Conditions in this Approval.

5. 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 ESDM Report in accordance with section 26 of O. Reg. 419/05 and shall update the Noise Screening Documents 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 the Noise Screening Documents 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 Noise Screening Documents 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.
2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. OPERATION AND MAINTENANCE

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

- f. procedures for record keeping activities relating to the operation and maintenance programs.
2. The Company shall ensure that all Processes with Significant Environmental Aspects are operated and maintained in accordance with this Approval, the operating procedures and maintenance programs.

8. COMPLAINTS RECORDING AND REPORTING

1. If at any time, the Company receives an environmental complaint from the public regarding the operation of the Equipment approved by this Approval, the Company shall take the following steps:
 - a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.
 - b. Notify the District Manager of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the District Manager.
 - c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
 - d. Complete and retain on-site a report written within 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. 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. supporting information used in the emission rate calculations performed in the ESDM Reports;
 - c. the records in the Log;
 - d. copies of each Written Summary Form provided to the Ministry under Condition 6.1 of this Approval;

- e. records of maintenance, repair and inspection of Equipment related to all Processes with Significant Environmental Aspects; and
- f. all records related to environmental complaints made by the public as required by Condition 8 of this Approval.

10. SOURCE TESTING

1. The Company shall, within four (4) years of the date of the Approval, perform Source Testing in accordance with the procedures in Schedule B to determine the rates of emissions of the Test Contaminants from the Central Energy System.
2. The Company shall repeat the Source Testing every four (4) years thereafter, following the Source Testing Procedure outlined in Schedule B, to determine the rates of emissions of the Test Contaminants from the Central Energy System.

11. CONTINUOUS MONITORING

1. The Company shall install, conduct and maintain a program to continuously monitor the concentration of oxygen and carbon monoxide in the undiluted gas emitted from the combustion chambers of the Central Energy System, and the temperature of the hot combustion gases in the secondary combustion chambers of the Central Energy System. The continuous monitoring system shall be equipped with continuous recording devices and shall comply with the requirements outlined in the attached Schedule C.

12. PERFORMANCE

1. The Company shall ensure that the Central Energy System is operated to comply with the following performance requirements:
 - a. The temperature in the combustion chamber of the **fluidized bed wood combustors**, as recorded by the continuous temperature monitoring system, shall be at least 800 degrees Celsius at all times, and the residence time, of the products of combustion and the combustion air, in the combustion chamber shall not be less than one (1) second.
 - b. The concentration of oxygen in the undiluted gas emitted from the combustion chamber of the **fluidized bed wood combustors** 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 **fluidized bed wood combustors** is not greater than 800 parts per million 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, 10-day rolling averaging until June 30, 2021, and 500 parts per million 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, 10-day rolling averaging, there after.

- d. Only Wood-Based Fuel as defined by this Approval is used in the **fluidized bed wood combustor**
- e. Requirements in Sections 11.1 (1), 11.1 (2) and 11.1 (3) do not apply during the Start-up and Shut-down periods of the **fluidized bed 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,
 - 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.

13. BI-ANNUAL TUNE-UP

- 1. The Company shall conduct, within two (2) years of the date of this Approval and repeat every two (2) years thereafter, a tune-up of the Central Energy System to assist in achieving effective combustion. The tune-up shall include but not be limited to:
 - a. Physical inspection of the following:
 - i. fuel handling equipment
 - ii. fuel distribution equipment
 - iii. combustion air system
 - iv. air measurement devices
 - v. grates or burners
 - b. Review of equipment performance:
 - i. review carbon monoxide and oxygen data
 - ii. review airflow data
 - iii. review air to fuel ratio data and verify operating within design criteria
 - iv. review calibration data and performance of the continuous monitoring system
 - c. Conduct combustion test:
 - i. visual observation of combustion

- ii. monitor and adjust excess air ratio
 - 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.

14. FUEL MANAGEMENT PLAN

1. The Company shall, not later than three (3) months from the date of this Approval, prepare a Fuel Management Plan for the Central Energy System. The Company shall update the Plan as necessary. The Plan shall include, but not be limited to:
- a. A list of the types of Wood-Based Fuel that may be stored at the Facility.
 - b. For each type of Wood-Based 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-Based Fuel will be considered of acceptable quality for storage at the Facility.
 - d. A procedure to ensure that the Wood-Based 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-Based 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-Based Fuel may be stored at the Facility.
 - h. A pile turn-over procedure to ensure that Wood-Based 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-Based Fuel purchased by the Facility and the source from which it was purchased,
 - ii. the quantity of Wood-Based Fuel generated at the Facility, and

- iii. the quantity of Wood-Based Fuel rejected for storage at the Facility, in accordance with paragraph (6), and the reasons for the rejection.
2. The Company shall immediately implement and maintain the Fuel Management Plan.

15. NOTIFICATION REQUIREMENTS

1. The Company shall notify the District Manager, in writing either via email or letter, of each exceedance of the carbon monoxide limit specified in Condition 11.1, within two (2) business days of the exceedance. The notification shall include:
 1. The type of wood being processed;
 2. The moisture content of the material;
 3. Pollution control device parameters;
 4. Continuous emission monitor data for all monitored parameters; and
 5. 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 fluidized bed wood combustors.

16. SUMMARY REPORTS

1. The Company shall prepare, once every two (2) years, a Summary Report to summarize the performance and monitoring requirements of the Central Energy System as 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 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 fluidized bed wood combustors occurred.
- d. A record of approved fuel management procedures required in Condition 13.0 and details of instances where these were not followed, if any.
- e. For each pollution control device associated with the fluidized bed wood combustors, 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 under Condition 12.0 of this Approval.

17. ODOUR

1. The Company shall use all reasonable efforts to ensure that the 10-minute average concentration of odour at the most impacted Sensitive Receptor resulting from the operation of the Facility, calculated in accordance with Schedule D, does not exceed 1 odour unit.

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 July 27, 2020, signed by Bill Candline and submitted by the Company;
2. Emission Summary and Dispersion Modelling Report, prepared by Wood Environment & Infrastructure Solutions and dated July 27, 2020;
3. 2020 Source Testing Report, Silicon Dioxide - Central Energy System Exhaust, prepared by Wood Environment & Infrastructure Solutions and dated January 25, 2021.

SCHEDULE B

Test Contaminants

- Total suspended particulate matter
- Benzo(a)pyrene

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. 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. records of weather conditions such as ambient temperature and relative humidity;
 - c. Facility/process information related to the operation of the Central Energy System;
 - d. description of the emission sources controlled by the Central Energy System at the time of testing.
 4. results of Source Testing, including the emission rate, emission concentration, and relevant emission factor of the Test Contaminants from the Central Energy System; and
 5. a tabular comparison of calculated emission rates based on Source Testing results for the Test Contaminants to relevant estimates described in the ESDM Report.
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.
7. 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

Continuous Monitoring

PARAMETER: Temperature

LOCATION: The sample point for the Continuous Temperature Monitor shall be located at a point where the temperature reading is representative of the temperature of the gases retained in the secondary combustion chamber of each fluidized bed wood combustor of the Central Energy System.

PERFORMANCE: The Continuous Temperature Monitor shall meet the following minimum performance specifications for the following parameters.

	PARAMETERS	SPECIFICATION
1.	Type	shielded "K" type thermocouple, or thermal imaging as equivalent
2.	Accuracy	+/- 5 degrees Celsius

DATA RECORDER: The data recorder must be capable of registering continuously the measurement of the monitor 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 Central Energy System 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 each fluidized bed wood combustor of the Central Energy System and shall meet the following installation specifications:

	PARAMETERS	SPECIFICATION
1	Range (percentage)	0 - 20 or 0 - 25
2	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
3	Span Value (percentage)	2 times the average normal concentration of the source
4	Relative Accuracy	≤ 10 percent of the mean value of the reference method test data
5	Calibration error	0.25 percent O ₂
6	System Bias	≤ 4 percent of the mean value of the reference method test data
7	Procedure for Zero and Span Calibration Check	all system components checked
8	Zero Calibration Drift (24-hour)	≤ 0.5 percent O ₂
9	Span Calibration Drift (24-hour)	≤ 0.5 percent O ₂
10	Response time (90 percent response to a step change)	≤ 90 seconds
11	Operational Test Period	168 hours without corrective maintenance

CALIBRATION: Daily calibration drift checks on the monitor shall be performed and recorded in accordance with the requirements of Report EPS 1/PG/7.

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 2 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 for each calendar quarter during the first full year of operation, and 95 percent, thereafter.

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 each fluidized bed wood combustor of the Central Energy System and shall meet the following installation specifications:

	PARAMETERS	SPECIFICATION
1	Range (parts per million, ppm)	0 to \geq 200
2	Calibration Gas Ports	close to the sample point

PERFORMANCE: The Continuous Carbon Monoxide Monitor shall meet the following minimum performance specifications for the following parameters:

	PARAMETERS	SPECIFICATION
3	Span Value (nearest ppm equivalent)	2 times the average normal concentration of the source
4	Relative Accuracy	\leq 10 percent of the mean value of the reference method test data or \pm 5 ppm, whichever is greater
5	Calibration error	\leq 2 percent of the actual concentration
6	System Bias	\leq 4 percent of the mean value of the reference method test data
7	Procedure for Zero and Span Calibration Check	all system components checked
8	Zero Calibration Drift (24-hour)	\leq 5 percent of span value
9	Span Calibration Drift (24-hour)	\leq 5 percent of span value
10	Response time (90 percent response to a step change)	\leq 90 seconds
11	Operational Test Period	168 hours without corrective maintenance

CALIBRATION: Daily calibration drift checks on the monitor shall be performed and recorded in accordance with the requirements of Report EPS 1/PG/7.

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 2 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 for each calendar quarter during the first full year of operation, and 95 percent, thereafter.

SCHEDULE D

Procedure to calculate and record the 10-minute average concentration of odour at the Point of Impingement and at the most impacted Sensitive Receptor

1. Calculate and record one-hour average concentration of odour at the Point of Impingement and at the most impacted Sensitive Receptor, employing the AERMOD atmospheric dispersion model or any other model acceptable to the Director, that employs at least five (5) years of hourly local meteorological data and that can provide results reported as individual one-hour average odour concentrations;
2. Convert and record each of the one-hour average concentrations predicted over the five (5) years of hourly local meteorological data at the Point of Impingement and at the most impacted Sensitive Receptor to 10-minute average concentrations using the One-hour Average to 10-Minute Average Conversion described below; and
3. Record and present the 10-Minute Average concentrations predicted to occur over a five (5) year period at the Point of Impingement and at the most impacted Sensitive Receptor in a histogram. The histogram shall identify all predicted 10-minute average odour concentration occurrences in terms of frequency, identifying the number of occurrences over the entire range of predicted odour concentration in increments of not more than 1/10 of one odour unit. The maximum 10-minute average concentration of odour at the Sensitive Receptor will be considered to be the maximum odour concentration at the most impacted Sensitive Receptor that occurs and is represented in the histogram, disregarding outlying data points on the histogram as agreed to by the Director.
 - a. Use the following formula to convert and record one-hour average concentrations at the Point of Impingement and at the most impacted Sensitive Receptor to 10-minute average concentrations:

$$X_{10min} = X_{60min} * 1.65$$

where X_{10min} = 10-minute average concentration
 X_{60min} = one-hour average concentration

(Equation: X Subscript 10min Baseline equals X Subscript 60min Baseline times 1.65, where X Subscript 10min Baseline equals 10-minute average concentration and X Subscript 60min Baseline equals one-hour average concentration.)

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 up to date Noise Screening Documents and an up to date ESDM Report that describes the Facility at all times and make the Emission Summary Table from that report and the Noise Screening Documents 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 PERFORMANCE

Conditions No. 10, 11, 12, 13, 14, 15 and 16 are included to ensure optimum combustion performance in the fluidized bed wood combustors.

9. ODOUR ASSESSMENT

Condition No. 17 is included to ensure odorous emissions are minimized.

10. 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). 0544-9RHQMX issued on April 15, 2015.

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

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

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

The Notice should also include:

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

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

This Notice must be served upon:

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

AND

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

AND

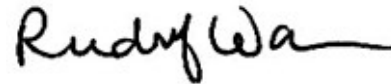
The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

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

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 30th day of April, 2021



Rudolf Wan, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

SM/

c: Area Manager, MECP Kenora Area Office

c: District Manager, MECP Thunder Bay District Office

Mano Narayanan, Wood Environmental & Infrastructure Solutions