



## APPROVAL TO OPERATE

I-11630

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Pursuant to paragraph 5 (3) (a) of the *Air Quality Regulation - Clean Air Act*, this Approval to Operate is hereby issued to:

**ARBEC FOREST PRODUCTS INC. PRODUITS FORESTIERS  
ARBEC INC.**

for the operation of the

**Miramichi Oriented Strand Board Manufacturing Facility**

Description of Source:

**Production of Oriented Strand Board**

Source Classification:

**Air Quality Regulation**

**Class 1B**

Parcel Identifier:

**40259152, 40259194**

Mailing Address:

**1101 Water St.**

**P. O. Box 425**

**Miramichi, NB E1N 4C6**

Conditions of Approval:

**See attached Schedule "A" of this Approval**

Supersedes Approval:

**I-9723**

Valid From:

**September 01, 2022**

Valid To:

**August 31, 2027**

Recommended by: \_\_\_\_\_

Issued by: \_\_\_\_\_

for the Minister of Environment and Climate Change

\_\_\_\_\_

Date

## SCHEDULE "A"

### A. DESCRIPTION AND LOCATION OF SOURCE

Arbec Forest Products Inc. operates a mill in Miramichi that produces oriented strand board (OSB) for use mainly in the construction industry. In the OSB process, hardwood and softwood logs pass through one of two self-cleaning hot ponds, and enter the mill where they are debarked in one of the debarkers. The debarked logs are flaked in one of three flakers, the flakes are dried in one of three dryers, and then screened and weighed. The dried flakes are combined with wax and resin, and are layered in the forming section. The formed layers of flakes are pressed into boards, cut to size, trimmed, painted, packaged, and stored for future transportation. Wood residuals from the process, which is composed of bark, screenings, sawdust, and panel trim, is burned in a wood fired furnace in order to heat thermal oil for the press, the hot ponds, buildings, and dryers. The combustion gases from the furnace are passed through multi-cyclone collectors prior to being directed to the three dryers, then to primary and secondary cyclone particulate collectors and on to a wet electrostatic precipitator before being discharged to the atmosphere through a single main stack. There is also an emergency by-pass stack in the event of emergency by-passing of the wet electrostatic precipitator.

There exist *potential* environmental impacts to the atmosphere from: 1) emissions of particulate matter and combustion gases from the main stack and the emergency by-pass stack; 2) emissions of formaldehyde and hydrocarbons from the press vents; 3) fugitive emissions of particulate matter from wood residual storage piles and the process operation; and 4) elevated noise levels.

The operation of the Oriented Strand Board mill, located in Morrison Cove, in the City of Miramichi, County of Northumberland, and Province of New Brunswick, and identified by parcel identifier (PID) numbers 40259194 and 40259152, is hereby approved under the *Air Quality Regulation-Clean Air Act* **subject to the following:**

### B. DEFINITIONS

**"Approval Holder"** means ARBEC FOREST PRODUCTS INC. PRODUITS FORESTIERS ARBEC INC.

**"Department"** means the New Brunswick Department of Environment and Local Government.

**"Minister"** means the Minister of Environment and Climate Change and includes any person designated to act on the Minister's behalf.

**"Director"** means the Director of the Authorizations Branch of the Department of Environment and Local Government and includes any person designated to act on the Director's behalf.

**"environmental emergency"** means a situation where there has been or will be a release, discharge, or deposit of a contaminant or contaminants to the atmosphere, soil, surface water, and/or groundwater environments of such a magnitude or duration that it could cause significant harm to the environment or put the health of the public at risk.

**"after hours"** means the hours when the Department's offices are closed. These include statutory holidays, weekends, and the hours before 8:15 a.m. and after 4:30 p.m. from Monday to Friday.

**"normal business hours"** means the hours when the Department's offices are open. These include the period between 8:15 a.m. and 4:30 p.m. from Monday to Friday excluding statutory holidays.

**"Facility"** means the property, buildings and equipment located on the property identified by the Parcel Identifier(s) on the certificate page of this Approval, and all contiguous property in the title and/or control of the Approval Holder at that location.

**"statutory holiday"** means New Year's Day, Good Friday, Easter Monday, the day fixed by proclamation of the Governor-in-council for the celebration of the birthday of the Sovereign (Victoria Day), Canada Day, New Brunswick Day, Labour Day, the day fixed by proclamation of the Governor-in-council as a general day of Thanksgiving, Remembrance Day, Christmas Day and Boxing Day. If the Statutory Holiday falls on a Sunday, the following day shall be considered as the Statutory Holiday.

**"Bypass Event"** means a situation where the pollution control equipment is either not operating or not fully functional.

**"Off-Site Receptor"** means any public, private or environmental receptor outside the fence line of the Facility.

## C. TERMS AND CONDITIONS

### GENERAL CONDITIONS

1. This Facility has been classified as a **Class 1B** source, pursuant to the *Air Quality Regulation, New Brunswick Regulation 97-133* filed under the *Clean Air Act*. The Approval Holder shall pay the appropriate fee **on or before April 1 of each year**.

2. The Approval Holder shall operate the Facility in compliance with the *Air Quality Regulation 97-133* filed under the *Clean Air Act* of the Province of New Brunswick. Violation of any term and condition herein stated constitutes a violation of the *Clean Air Act*.
3. The terms and conditions of this approval are severable. If any term or condition is held invalid, is revoked or is modified, the remainder of the approval shall not be affected.
4. The Approval Holder must apply in writing to the Minister for any modification to the source as described in the Approval that would change the currently approved composition and/or quantity of contaminants being discharged to the environment. Such applications must be received by the Minister **at least 270 days** prior to the planned modification.
5. In the event of Facility closure, the Approval Holder shall notify the Minister **at least six (6) months prior** to this closure and shall, at that time, prepare and submit to the Minister for review an updated site plan and an engineering proposal for the site rehabilitation and closure.
6. The Approval Holder shall **immediately** notify the Minister in writing of any change in its name or address.

#### EMERGENCY REPORTING

- 7a. Immediately following the discovery of an environmental emergency, the Approval Holder shall notify the Department in the following manner.

During normal business hours, telephone the Department's applicable Regional Office **until personal contact is made** (i.e. no voice mail messages will be accepted) and provide as much information that is known about the environmental emergency. The telephone numbers for the Department's six Regional Offices are provided in the table below.

*After Hours*, telephone **Environment and Climate Change Canada's National Environmental Emergencies Centre (NEEC) until personal contact is made** and provide all information known about the *Environmental Emergency*. The telephone number for the **NEEC is 1-800-565-1633**.

- 7b. Within 24-hours of the time of initial notification, a **Preliminary Emergency Report** shall be faxed or emailed by the Approval Holder to the Department's Central Office and applicable Regional Office using the contact information provided below. The Preliminary Emergency Report shall clearly communicate as much information that is available at the time about the environmental emergency.

Within five (5) days of the time of initial notification, a **Detailed Emergency Report** shall be faxed or emailed by the Approval Holder to the applicable Regional Office and to the Department's Central Office using the contact information provided below. The Detailed Emergency Report shall include, as minimum, the following: i) a description of the problem that occurred; ii) a description of the impact that occurred; iii) a description of what was done to minimize the impact; and iv) a description of what was done to prevent recurrence of the problem.

| Office location           | Phone          | Fax            | Email  |
|---------------------------|----------------|----------------|--|
| Miramichi Regional Office | (506) 778-6032 | (506) 778-6796 | <a href="mailto:Elg.egl-region2@gnb.ca">Elg.egl-region2@gnb.ca</a> |
| Central Office            | -              | (506) 453-2390 | Approval Engineer  |

#### FACILITY MANAGEMENT

8. The Approval Holder shall ensure that all chemicals used at the Facility are stored in a dedicated Chemical Storage System. The system shall be set-up to ensure that all chemicals are:
- a) secured in sealed and chemically resistant containers;
  - b) away from high traffic areas and protected from vehicle impacts;
  - c) away from electrical panels;
  - d) in a containment area that has secondary containment adequate to contain 110 % of the nominal volume of the largest container in the containment area;
  - e) in a containment area that is designed to prevent contact between incompatible chemicals; and
  - f) in a containment area designed to prevent the release or discharge of chemicals to the environment as a result of a spill.
9. The Approval Holder shall ensure that all air pollution control equipment, including all primary cyclones, secondary cyclones, multi-cyclones and the wet electrostatic precipitator, are fully functional and in use during the operation of the Facility.

The Approval holder shall ensure that the duration of any single Bypass Event does not exceed 6 hours. The Approval Holder shall immediately cease operating the Facility in the event the Bypass Event exceeds 6 hours.

The total number of Bypass Event hours shall not exceed 20 hours for any rolling 30 day period. In the event the total Bypass Event hours exceeds 20 hours for any rolling 30 day period, the Approval Holder shall provide an action plan to the Director for consideration and approval within 30 days of the last day of the rolling 30 day period. Such action plan shall identify corrective measures for the resolution of operational issues and prevention of reoccurrences of such events to be undertaken, along with timelines.

10. The Approval Holder shall ensure that all solid waste generated at the Facility is disposed of in a manner and at a location that is acceptable to the Director.
12. The Approval Holder may burn the waste oil that contains wood waste and/or water in the GTS wood fired furnace. The waste oil/wood waste/water mixture shall be added to the hog fuel on an impermeable pad and introduced directly into the GTS furnace. The waste oil/wood waste/water mixture shall not be stored or accumulated on site. Waste oil that does not contain wood waste and/or water is not permitted to be burned and shall be collected by an approved waste oil collection company.
13. The Approval Holder may burn the waste paraffin wax that contains wood waste and/or water in the GTS wood fired furnace. The waste paraffin wax/wood waste/water mixture shall be added to the hog fuel on an impermeable pad and introduced directly into the GTS furnace. The waste paraffin wax/wood waste/water mixture shall not be stored or accumulated on site. Waste paraffin wax that does not contain wood waste and/or water is not permitted to be burned and shall be collected by an approved waste collection company.
14. The Approval Holder may burn the latex-based waste edge sealant and stencil paint in the GTS wood fired furnace. The waste edge sealant and stencil paint shall be added to the hog fuel on an impermeable pad and introduced directly into the GTS furnace.
15. The Approval Holder shall maintain and adhere the Air Monitor Contingency Plan for Arbec submitted to the Department on March 31<sup>st</sup>, 2022, which provides details on how the facility will ensure the ambient monitoring stations are not out of service for an extended period of time in the event of instrument failure, loss of access to data, or other such circumstances.

#### EMISSION LIMITS

16. The Approval Holder shall ensure that the emissions originating from the sources at the Facility be controlled to prevent the exceedance of the maximum ground level concentrations outlined in Schedule B and Schedule C of the *Air Quality Regulation 97-133*, filed under the *Clean Air Act* of the Province of New Brunswick.

17. The Approval Holder shall ensure that the smoke density of the exhaust gas exiting any stack or vent at the Facility conforms with the requirements of Section 14 of the *Air Quality Regulation 97-133* filed under the *Clean Air Act*.
18. The Approval Holder shall ensure that the particulate matter emissions from the main stack at the Facility do not exceed the 200 milligrams per dry standard cubic metre (mg/Dsm<sup>3</sup>) where standard conditions are 298 Kelvin (K) and 101.3 kilopascals (kPa).
19. The Approval Holder shall ensure that the total combined emissions of particulate matter (PM) from all sources at the Facility do not exceed three hundred (300) metric tonnes per calendar year.
20. The Approval Holder shall ensure that the total combined emissions of formaldehyde from all sources at the Facility do not exceed one hundred and forty (140) metric tonnes per calendar year.
21. The Approval Holder shall ensure that the total combined emissions of nitrogen oxides (NO<sub>x</sub>), expressed as nitrogen dioxide (NO<sub>2</sub>), from all sources at the Facility do not exceed one hundred and fifty (150) metric tonnes per calendar year.
22. The Approval Holder shall ensure that odour, dust, noise, boiler blowdown, and/or site run-off being released or discharged from the Facility does not cause adverse impacts to any Off-Site Receptor. In the event impacts are suspected by the Department to be adversely impacting any Off-Site Receptor, the Approval Holder may be required to investigate the degree of impact and/or develop, submit, and implement a Prevention and Control Plan in accordance with a timetable established by the Department. The plan shall be submitted in writing to the Department for review and approval prior to implementation.

#### TESTING AND MONITORING

23. The Approval Holder shall ensure that two ambient High Volume samplers are operated at locations acceptable to the Department, to monitor ambient concentrations of particulate matter surrounding the Facility. The samplers shall operate for a period of twenty-four hours every six days according to the National Air Pollution Surveillance (NAPS) Network schedule, or other schedules acceptable to the Department. The sample filters shall be analysed for total suspended particulate (TSP) using methods acceptable to the Department. Sample filters shall also be retained for a period of two years and presented to the Director upon request.



24. The Approval Holder shall ensure that two ambient monitors that are capable of measuring fine particulate matter of less than or equal to 10 microns in diameter ( $PM_{10}$ ) and 2.5 microns in diameter ( $PM_{2.5}$ ) are operated at locations acceptable to the Department, to monitor ambient concentrations of particulate matter surrounding the Facility.
25. The Approval Holder shall ensure that all source testing events undertaken by the Approval Holder, or on behalf of the Approval Holder, are completed in accordance with the Department's Guidance Document for Source Testing dated January 2003 or latest revision.
26. **Prior to December 31, 2022**, the Approval Holder shall conduct source testing on the Main Exhaust Stack and Press Vents. The Main Stack source testing will determine the concentration in milligrams per cubic metre ( $mg/m^3$ ) and emission rate in grams per second (g/s) of PM,  $NO_x$ , CO,  $CH_2O$  and TVOCs.
27. **Prior to December 31, 2024**, the Approval Holder shall conduct source testing on the Main Exhaust Stack and Press Vents. The Main Stack source testing will determine the concentration in milligrams per cubic metre ( $mg/m^3$ ) and emission rate in grams per second (g/s) of PM,  $NO_x$ , CO,  $CH_2O$  and TVOCs. The Press Vent source testing will determine the concentration in milligrams per cubic metre ( $mg/m^3$ ) and emission rate in grams per second (g/s) of CO,  $CH_2O$  and TVOCs.
28. **Prior to December 31, 2026**, the Approval Holder shall conduct source testing on the Main Exhaust Stack and Press Vents. The Main Stack source testing will determine the concentration in milligrams per cubic metre ( $mg/m^3$ ) and emission rate in grams per second (g/s) of PM,  $NO_x$ , CO,  $CH_2O$  and TVOCs.
29. The Approval Holder shall complete an air quality dispersion modelling study immediately following any source testing activities required for a given year if requested by the Director. The study shall determine the maximum 1-hour, 8-hour, 24-hour and annual average ground level concentrations, in micrograms per cubic metre, for the parameters specified in the source testing activities. The Approval Holder shall submit a report of such modeling to the Department and the maximum ground level concentrations shall be shown graphically as concentration contours in relation to the Facility and Off-Site Receptors within a five-kilometre radius. The modelling study shall use the previous five years hourly meteorological data from the nearest weather station and the emissions data from the most recent performance testing campaign.
30. The Approval Holder shall complete Total Suspended Particulate Analysis by Polarized Light Microscopy when a particulate ambient air quality result exceeds 120 micrograms per cubic meter.

31. The Approval Holder shall conduct performance tests on emissions or on ambient air quality at such times and in such manner as the Director may specify in writing.

#### REPORTING

32. In the event the Approval Holder receives a complaint from the public regarding unfavourable environmental impacts associated with the Facility, the Approval Holder is to report this complaint by email to the Department's applicable Regional Office within one business day of receiving the complaint.
33. In the event the Approval Holder violates any Term and Condition of this Approval or the *Air Quality Regulation*, the Approval Holder is to immediately report this violation by email to the Department's applicable Regional Office and the Central Office in Fredericton. In the event the violation may cause the health or safety of the general public to be at risk and/or significant harm to the environment could or has resulted, the Approval Holder shall follow the Emergency Reporting procedures contained in this Approval.
34. **Within 15 days of the end of each month**, the Approval Holder shall submit to the Department, the results of the ambient air quality monitoring program, as outlined in conditions 23, 24 and 30. The results shall be quality assured and submitted in electronic format.
35. **At least one month prior to the source testing required under Conditions 26, 27 and 28**, the Approval Holder shall ensure that a Pre-Test Plan is completed in accordance with the requirements of the Department's Code of Practice for Source Testing and that such Pre-Test Plan is filed with the Department for review and approval.
36. **Prior to March 31, 2023**, the Approval Holder shall ensure that a Final Report on the source testing required under Condition 26 is completed in accordance with the requirements of the Department's Code of Practice for Source Testing and that the Final Report is submitted to the Department for review and approval.
37. **Prior to March 31, 2025**, the Approval Holder shall ensure that a Final Report on the source testing required under Condition 27 is completed in accordance with the requirements of the Department's Code of Practice for Source Testing and that the Final Report is submitted to the Department for review and approval.
38. **Prior to March 31, 2027**, the Approval Holder shall ensure that a Final Report on the source testing required under Condition 28 is completed in accordance with the requirements of the Department's Code of Practice for Source Testing and that the Final Report is submitted to the Department for review and approval.

39. The Approval Holder shall submit to the Department, an air quality modelling report(s) required under Condition 29 when requested by the Director.
40. **By February 15 of each year**, the Approval Holder shall submit to the Department, for the previous calendar year, an Environmental Summary Report that shall include, as a minimum, summary information for the following:
- i) the amounts and types of fuel burned, including the sulphur content of any fuel oil burned;
  - ii) calculations and estimates of the annual emission rates of particulate matter, formaldehyde, nitrogen oxides, TVOCs and carbon monoxide;
  - iii) operational availability and ambient data from the ambient air monitors;
  - iv) amount of ash produced and location of disposal;
  - v) monthly production data;
  - vi) any violations of the Conditions of this Approval, and the remedial action taken;
  - vii) amount of edgeseal and stencil paint incinerated in the wood fired furnace.
41. The Approval Holder shall maintain records of the frequency and duration of all discharges from the emergency by-pass stack. Such records shall be retained for a period of two years, and presented to the Department upon request. Any and all discharges via the emergency by-pass stack shall be reported to the Miramichi Regional Office and Central Office in Fredericton within 24 hours of the occurrence by email.
42. The Approval Holder shall maintain records of the frequency and duration of all discharges from the emergency dump stack and the idle stack. Such records shall be retained for a period of two years, and presented to the Director upon request. Any and all discharges via the emergency dump stack and/or the idle stack shall be reported to the Department on a monthly basis.

Prepared by: \_\_\_\_\_

Jérémie Doucet

Approvals Coordinator

Authorizations Branch

Reviewed by: \_\_\_\_\_

Danny Stymiest, P.Eng.  
Acting Manager, Permitting North  
Authorizations Branch