



## APPROVAL TO OPERATE

**I-10362**

---

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

**NORTHERN ENERGY SOLUTIONS LTD.**

for the operation of the

**Miramichi Wood Pellet Production Facility**

Description of Source:

**Wood Pellet Production Facility**

Source Classification:

**Air Quality Regulation**

**Class 1B**

Parcel Identifier:

**40179681**

Mailing Address:

**P.O. Box 338**

**Station A**

**Fredericton, NB E3B 4Z9**

Conditions of Approval:

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

Supersedes Approval:

**New**

Valid From:

**May 29, 2019**

Valid To:

**May 28, 2024**

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

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

for the Minister of Environment and Local Government

\_\_\_\_\_

Date

## SCHEDULE "A"

### A. DESCRIPTION AND LOCATION OF SOURCE

Northern Energy Solution Ltd. operates a wood pellet production facility in Miramichi, New Brunswick. The facility consists primarily of a furnace, rotary dryer, cyclones, biosizer, hammermills, and pelletizers.

The wood pellet production plant receives the raw fiber (biomass roundwood, tops, branches, sawdust, bark and shavings.) by truck. The manufacturing process starts by drying the wood from an average moisture of 50% to an output moisture of 8% by using a direct fired rotary dryer. After drying, the wood is ground into a fine powder and is sent to the pelletizing machines where it is pressed into wood pellets. Pellets are then cooled and stored in a silo system for loading and delivery by truck to the Port of Belledune. NES uses a multiclone configuration to address particulate matter from the combustion system gas stream, and cyclofilter to remove particulate matter from the negative pressure system.

The operation of Northern Energy Solution Ltd. wood pellet production facility in Miramichi, New Brunswick and located on the property identified by the Parcel Identifier (PID) 40179681, is hereby approved **subject to the following**:

### B. DEFINITIONS

**"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.

**“Approval Holder”** means NORTHERN ENERGY SOLUTIONS LTD.

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

**“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.

**“Facility”** means the property, buildings, and equipment as identified in the Description and Location of Source above, and all contiguous property in the title of the Approval Holder at that location.

**“Inspector”** means an Inspector designated under the *Clean Air Act*, the *Clean Environment Act*, or the *Clean Water Act*.

**“Minister”** means the Minister of Environment and Local Government and includes any person designated to act on the Minister's behalf.

**“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.

**“statutory holiday”** means New Year's Day, Family 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.

## C. TERMS AND CONDITIONS

### GENERAL

1. This Facility has been classified as a **Class 1B** Facility, 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 this Approval or any condition stated herein constitutes a violation of the *Clean Air Act* of the Province of New Brunswick.
3. The terms and conditions of this Approval are severable. If any term and/or condition of this Approval is held invalid, is revoked or is modified, the remainder of the Approval shall not be affected.
4. The issuance of this Approval does not relieve the Approval Holder from compliance with other by-laws, federal or provincial acts or regulations, or any guidelines issued pursuant to regulations.

5. The Approval Holder shall make application in writing, on a form provided by the Minister, for approval to undertake any modification to the Facility that would significantly change the current composition and/or quantity of contaminants being discharged to the environment. The Minister must receive such application **at least 240 days prior** to the planned modification commencement.
  
6. In the event of Facility closure, the Approval Holder shall prepare plans for complete site rehabilitation. The plans shall be submitted to the Department for review **at least six (6) months before** the planned closure date. The documentation shall include updated site plans as well as an engineering proposal for the site rehabilitation and closure.

#### EMERGENCY REPORTING

7. Immediately following the discovery of an environmental emergency, a designate representing 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 all information known about the environmental emergency. The telephone number for the Regional Office is provided below:

**Miramichi Regional Office (506) 778-6032**

After hours, telephone the Canadian Coast Guard **until personal contact is made** and provide all information known about the environmental emergency. The telephone number for the **Canadian Coast Guard is 1-800-565-1633**.

8. Within 24-hours of the time of initial notification, an electronic email copy of a **Preliminary Emergency Report** shall be filed by a designate representing the Approval Holder to the Department's Miramichi Regional Office and Central Office. 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, an electronic mail copy of a **Detailed Emergency Report** shall be filed by a designate representing the Approval Holder to the Department's Miramichi Regional Office and Central Office.

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.

Electronic Mail Addresses:

Miramichi Regional Office at [elg.egl-region2@gnb.ca](mailto:elg.egl-region2@gnb.ca)

Central Office in Fredericton to the assigned approvals engineer

## LIMITS

9. The Approval Holder shall ensure that emissions resulting from the operation of the Facility are controlled to prevent the exceedance of the maximum ground level concentrations outlined in the *Air Quality Regulation 97-133*, filed under the *Clean Air Act* of the province of New Brunswick.



10. 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*.
11. The Approval Holder shall ensure that odour, dust, noise, 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 that emissions 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.
12. 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<sub>3</sub>) where standard conditions are 298 Kelvin (K) and 101.3 kilopascals (kPa).

#### FACILITY MANAGEMENT

13. The use of petroleum products for dust control is **not permitted**.
14. The Approval Holder is permitted to burn biomass in their dryer furnace. The burning of wood waste derived from pressure treated lumber is not permitted.
15. The Approval Holder shall ensure that all wood waste received at the Facility is burned as fuel for the dryer, transported to another facility for reuse, or disposed of in a manner and location approved by the Director.

16. The Approval Holder shall ensure that all chemicals stored at the Facility are located 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.
17. The Approval Holder shall ensure that all solid waste, including ash generated from the operation of the Facility's Dryer Furnace, is disposed of in a manner and at a location approved by the Department.
18. The Approval Holder shall ensure that all air pollution control equipment, including the multiclone and cyclofilter, are fully functional and in use during the operation of the Facility.

#### TESTING AND MONITORING

19. **Prior to December 31, 2020**, the Approval Holder shall conduct source testing on the main exhaust stack to determine the concentration in milligrams per cubic metre (mg/m<sup>3</sup>) and emission rate in grams per second (g/s) of particulate matter (PM), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), total volatile organic compounds (TVOCs) and exhaust gas temperature in degrees Celsius.

20. **Prior to December 31, 2022**, the Approval Holder shall conduct source testing on the main exhaust stack to determine the concentration in milligrams per cubic metre (mg/m<sup>3</sup>) and emission rate in grams per second (g/s) of particulate matter (PM), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), total volatile organic compounds (TVOCs) and exhaust gas temperature in degrees Celsius.
21. **Prior to December 31, 2024**, the Approval Holder shall conduct source testing on the main exhaust stack to determine the concentration in milligrams per cubic metre (mg/m<sup>3</sup>) and emission rate in grams per second (g/s) of particulate matter (PM), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), total volatile organic compounds (TVOCs) and exhaust gas temperature in degrees Celsius.
22. The Approval Holder shall conduct additional performance tests on stack emissions and/or conduct ambient monitoring at such times and in such manner as the Director may, in writing, require.
23. 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 requirements of the Department's Code of Practice for Source Testing.
24. The Approval Holder shall complete an air quality dispersion modeling study immediately following any source testing activities required for a given year. 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 offsite receptors within a ten-kilometre radius. The modeling 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.

## REPORTING

25. 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 (Miramichi Regional Office at [elg.egl-region2@gnb.ca](mailto:elg.egl-region2@gnb.ca)) and the Central Office in Fredericton to the assigned approvals engineer. 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.
26. In the event the Approval Holder receives a complaint from the public regarding unfavorable environmental impacts associated with the Facility, the Approval Holder is to report this complaint by sending an electronic copy to the Department's applicable Regional Office (Miramichi Regional Office at [elg.egl-region2@gnb.ca](mailto:elg.egl-region2@gnb.ca)) and the Central Office in Fredericton to the assigned approvals engineer within one business day of receiving the complaint.
27. At least one month prior to the source testing required under Conditions 19, 20 and 21, the Approval Holder shall ensure that a Pre-Test Plan is completed in accordance with the requirements of the Department's Guidance Document for Source Testing and that such Pre-Test Plan is filed with the Department for review and approval.
28. **Within one month of completing the source testing** required under Conditions 19, 20 and 21, the Approval Holder shall ensure that a Final Report on the source testing is completed in accordance with the requirements of the Department's Guidance Document for Source Testing and that the Final Report is submitted to the Director for review and approval.
29. **By February 15 of each year**, the Approval Holder shall submit an Annual Environmental Report to the Department. The report shall, as a minimum, include the following information for the previous calendar year:
- i) 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, nitrogen oxides, TVOCs and carbon monoxide;
- iii) amount of ash produced and location of disposal

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

Jérémie Doucet

Approval coordinator

Authorization Branch

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

Timothy LeBlanc, P. Eng.

Manager, Permitting North

Authorization Branch