



## APPROVAL TO OPERATE

I-10570

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Pursuant to paragraph 5 (3) (a) of the *Air Quality Regulation - Clean Air Act*, and paragraph 8(1) of the *Water Quality Regulation - Clean Environment Act*, this Approval to Operate is hereby issued to:

**J. D. IRVING, LIMITED**

for the operation of the

**SCIERIE GRANDE RIVIERE**

Description of Source:

**SAWMILL**

Source Classification:

**Air Quality Regulation**

**Class 1B**

**Fees for Industrial Approvals  
Regulation - Clean Water Act**

**Class 4**

Parcel Identifier: **35101781, 35217553, 35213453**

Mailing Address: **P.O. Box 2189**  
**Saint-Léonard, NB E7E 2M7**

Conditions of Approval: **See attached Schedule (s)"A" and "B" of this Approval**

Supersedes Approval: **I-10442**

Valid From: **December 01, 2019**

Valid To: **November 30, 2024**

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

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

for the Minister of Environment and Local Government

\_\_\_\_\_

Date

## SCHEDULE "A"

### A. DESCRIPTION AND LOCATION OF SOURCE

J. D. IRVING, LIMITED operates SCIERIE GRANDE RIVIÈRE in Saint-Léonard. Round wood is brought to the facility, sawn, sized and dried to a specific moisture content in dry kilns located on the site. The mill produces approximately 350 million board feet (BF) of lumber per year. Heat for the Facility will be provided by a biomass combustor, intended to offset the use of no. 6 fuel oil. Supplemental heat may be provided by the oil-fired heaters. The site consists of a sawmill, a biomass thermal plant, three oil fired boilers, six dry kilns, woodwaste storage and outside wood storage.

There exist *potential* environmental impacts from 1) emissions of particulate matter and combustion gases from the boilers 2) fugitive dust emissions from the facility; 3) emissions from the spillage of petroleum products (during storage tank refilling) and 4) emissions from the handling and storage of chemicals.

SCIERIE GRANDE RIVIÈRE operated by J. D. IRVING, LIMITED, located in the Town of Saint-Léonard, County of Madawaska, in the Province of New Brunswick and identified by property identification (PID) numbers **35101781**, **35217553**, and **35213453**, is hereby approved subject to the following:

### B. DEFINITIONS

"**Approval Holder**" means J.D. IRVING, LIMITED.

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

**"Minister"** means the Minister of Environment and Local Government 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.

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

**"Facility"** means the property, buildings, and equipment as identified in the Description of Source above, and all contiguous property in the title and/or in the control of the Approval Holder at that location.

**"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.

## 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. This Facility has been classified as a **Class 4** Facility, pursuant to the *Fees for Industrial Approvals Regulation 93-201* filed under the *Clean Water Act*. The Approval Holder shall pay the appropriate fee **on or before April 1 of each year**.
3. The Approval Holder shall operate the Facility in compliance with the *Air Quality Regulation 97-133* filed under the *Clean Air Act*, and/or the *Water Quality Regulation 82-126* filed under the *Clean Environment Act* of the Province of New Brunswick. Violation of this Approval or any term and/or condition stated herein constitutes a violation of the *Clean Air Act* or the *Clean Environment Act*, as the case may be.
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 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.
6. The Approval Holder shall notify the Minister in writing of any plans to modify the operation of the Facility that would result in a significant change in the characteristics or increased rate of discharge of any emission to the atmosphere **at least two hundred and forty (240) days prior** to the modification.

7. 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

8. 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:

**Grand Falls Regional Office: (506) 473-7744**

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**.

9. 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 Grand Falls 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 Grand Falls 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:**

Grand Falls Regional Office at elg.egl-region6@gnb.ca

Central Office in Fredericton to the assigned approvals engineer

LIMITS

10. 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.
  
11. The Approval Holder shall ensure that smoke emissions from the boilers do not exceed smoke density number 1, except for a period totalling not more than four (4) minutes during any one-half hour where smoke density may exceed density number 1 but shall not exceed density number 2, as determined by the Smoke Density Chart of the Province of New Brunswick. In the case of a new fire, smoke emissions may exceed density number 2 for a period not totalling more than three (3) minutes during each quarter hour period but at no time shall smoke density exceed density number 3.

12. The Approval Holder shall ensure that odour, noise, fugitive particulate matter, and/or site run-off being released or discharged from the Facility do 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.
13. The Approval Holder shall ensure that total emissions of Sulphur Dioxide (SO<sub>2</sub>) from Facility boilers do not exceed 251 metric tonnes per calendar year.
14. The Approval Holder shall ensure total emissions of Nitrogen Oxides (NO<sub>x</sub>) from Facility boilers do not exceed 153 metric tonnes per calendar year.
15. The Approval Holder shall ensure total emissions of Particulate Matter (PM) from the Facility boilers do not exceed 175 metric tonnes per calendar year.
16. The Approval Holder shall ensure that all site runoff is collected and treated in such a manner that any discharge to Grande Rivière, or any other watercourse, has a total suspended solids (TSS) concentration of no more than 50 mg/l in a grab sample.

#### FACILITY MANAGEMENT

17. The Approval Holder shall ensure that cleaning and other maintenance of the stack, breaching and associated ductwork is carried out as necessary to prevent the buildup of soot and to reduce its resulting fallout to a degree where environmental impact is acceptable.



18. The Approval Holder shall ensure that the biomass combustor stack is equipped with an oxygen monitor capable of accurately determining the combustion efficiency of the biomass combustor, at all times during operation.
19. The Approval Holder shall ensure that ambient concentrations of fugitive particulate matter emissions from all activities do not exceed 120 micrograms per cubic meter of air measured under standard conditions at the property line of the Facility.
20. The use of petroleum products as a dust control agent is **not permitted**.
21. The Approval Holder shall ensure that all waste wood materials are not permanently stored at the Facility. Wood waste shall be disposed of in a method acceptable to the Department, either by transport to another facility for use, or to an approved landfill. Wood waste shall not be stockpiled for a period greater than 60 days.
22. The Approval Holder shall employ good housekeeping practices to ensure spillages of waste wood materials are cleaned up as soon as possible and handled in such a manner that fugitive emissions of wood materials do not leave the site of the Facility.
23. The Approval Holder shall ensure that all solid waste, including ash generated from the operation of the Facility's Biomass Thermal Plant, is disposed of in a manner and at a location approved by the Department.
24. 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.
25. The Approval Holder shall ensure that no effluent from the operation of the hot ponds is discharged to the environment.
26. The Approval Holder shall adhere to the recommendations in the "Erosion and Sediment Control Plan", prepared for SCIERIE GRANDE RIVIÈRE by Jacques, Whitford and Associates Limited, and dated February 2002.
27. The Approval Holder shall ensure that the erosion and sediment control devices are inspected on a weekly basis, as per the General Maintenance Checklist in the "Erosion and Sediment Control Plan", such that sediment from runoff and/or fugitive emissions do not impact Grande Rivière.
28. The Approval Holder shall operate a rain gauge for the purpose of measuring all rainfall events. This gauge shall be checked on a daily basis, to determine whether Total Suspended Solids (TSS) sampling is required.

#### TESTING AND MONITORING

29. The Approval Holder shall ensure that all Air Pollution Control Equipment, including but not limited to opacity and oxygen monitors, is fully functional and in operation at all times when the Facility is in operation. The Approval Holder shall ensure that all monitors are equipped to provide a hard copy record and that these records are kept for a period of one year for easy access by the Inspector.

30. **By October 31 of each year**, the Approval Holder shall conduct performance tests to characterize the contaminants and gases being emitted from the exhaust stack for the Biomass Thermal Plant and all operating boiler stacks to the ambient environment. As a minimum, testing shall be conducted to quantify emissions of the following parameters:
- i) particulate matter (PM);
  - ii) carbon monoxide (CO);
  - iii) nitrogen oxides (NO<sub>x</sub>);
  - iv) sulphur dioxide (SO<sub>2</sub>);
  - v) carbon dioxide (CO<sub>2</sub>); and
  - vi) oxygen (O<sub>2</sub>).

A report on the results of the performance testing shall be prepared and shall include exhaust gas temperature in degrees Celsius, volumetric flow rate in actual m<sup>3</sup>/s (or ACFM), emissions testing data for all six parameters shall be quality assured and presented in both hardcopy and electronic formats that are acceptable to the Department.

31. The source testing events as required in item 42 under the Terms and Conditions section of this Approval shall be subject to the following additional requirements:
- a) The Approval Holder shall ensure that where source testing for Particulate Matter is required, Particle Size Distribution is also undertaken to determine the concentration in milligrams per cubic meter and emission rate in grams per second of Total Particulate Matter, PM<sub>10</sub> and PM<sub>2.5</sub> released; and
  - b) In any given year, if the Oil-Fired Boilers are operated for more than 700 hours total for that year, the Approval Holder shall ensure that the Oil Fired Boilers Exhaust Stacks are included in the source testing event for that year.

32. 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.
33. The Approval Holder shall monitor the TSS concentration of site runoff according to the following schedule:
- a) Once every two weeks, under normal weather conditions; and
  - b) The day following a heavy rainfall event (equal to or greater than 25 mm of rainfall in a 24-hour period).

The samples shall be taken at the inlet of the final discharge pipe where the runoff leaves the property, and shall be submitted to a laboratory approved by the Director for testing. Sampling is only required when there is discharge at this location. Bi-weekly samples (a) are not required for those periods that samples have been taken under (b).

34. Each year, the Approval Holder shall obtain **three (3)** grab samples of the site runoff at the inlet of the final discharge pipe where the runoff leaves the property. The samples shall be taken during non-consecutive months so as to get an accurate representation of the composition of the runoff. The grab samples shall be submitted to a laboratory approved by the Director for testing. The samples shall be analyzed for the following parameters: **Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Total Kjeldahl Nitrogen, Total Phosphorus, Total Ammonia, Trace Metals, Lignins, Tannins, Fatty Acids, Resins, and pH.**

35. The Approval Holder shall keep a logbook of all inspections and maintenance performed on the erosion and sediment control system. The logbook, as a minimum, shall indicate the date and time of inspection, the name of the person carrying out the inspection, the state of the existing structures, and any maintenance performed. This logbook shall also include rainfall measurements, as determined during the daily rain gauge inspections.

## REPORTING

36. 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 (Grand Falls Regional Office at [elg.egl-region6@gnb.ca](mailto:elg.egl-region6@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.
37. 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 email to the Department's applicable Regional Office (Grand Falls Regional Office at [elg.egl-region6@gnb.ca](mailto:elg.egl-region6@gnb.ca)) within one business day of receiving the complaint.
38. In the event of a small spill or leak of liquid materials, the Approval Holder shall act first to contain, and then to clean up the spilled or leaked material and mitigate any resulting impacts as soon as the spill or leak is detected. If the spill or leak results in an "environmental emergency" as defined in this Approval, the Approval Holder shall report the event in accordance with the Emergency Reporting section of this Approval. If the spill or leak is not an "environmental emergency", the Approval Holder shall report this event to the Department's applicable Regional Office by email, within one business day, identifying the material spilled, the approximate amount of liquid spilled, the location of the spill and the method(s) used to clean up the liquid.

39. The Approval Holder shall notify the Director, in writing, of all exceedances of the TSS concentration limit, as outlined in Condition 28. Along with this notification, the Approval Holder shall submit an action plan to reduce TSS, and a timeline by which this plan shall be implemented.
  
40. **Thirty (30) days prior** to any source testing events, the Approval Holder shall ensure that a Pre-Test Plan is completed in accordance with the requirements embodied in the Department's Code of Practice for Source Testing and that such Pre-Test Plan is filed with the Department for review and approval.
  
41. **Within 90 days** of the source testing events, the Approval Holder shall submit a Report of all data obtained during the performance test to the Minister for review.
  
42. **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:
  - a) the name of the fuel suppliers;
  - b) the types of fuel used;
  - c) the annual consumption of each type of fuel used;
  - d) the average sulphur content of each type of fuel used;
  - e) a summary of all maintenance performed on sediment and erosion control devices;
  - f) the results of the sampling and testing required in the Testing and Monitoring section of this Approval, including daily rainfall measurements; and
  - g) a summary report of all small spill and/or leak events at the Facility during the previous year, including the date, location, approximate volume, and method of cleanup for each spill and/or leak.

## **SCHEDULE "B"**

### WASTE OIL SPECIFICATIONS FOR USE AS FUEL

#### **APPLICABILITY:**

This document applies to all saw mills operating in New Brunswick that have been approved by the Department of Environment and Local Government to receive and burn waste derived fuel.

#### **TERMS AND CONDITIONS - FACILITY MANAGEMENT**

The burning of waste derived fuel as a heating fuel in the operation of the asphalt plant is only permitted if the fuel is received from an approved facility who can demonstrate that the limits specified below can be met, as per the *Used Oil Regulation - Clean Environment Act*. The Approval Holder shall retain copies of test reports, on-site, for a period no less than 2 years.

#### ***Allowable Concentrations of Substances in Used Oil:***

| Parameter                           | Maximum    | Minimum |
|-------------------------------------|------------|---------|
| PCB's                               | 2 mg/kg    | -       |
| Total Organic Halogen (as chlorine) | 1000 mg/kg | -       |
| Arsenic                             | 5 mg/kg    | -       |
| Cadmium                             | 2 mg/kg    | -       |
| Chromium                            | 10 mg/kg   | -       |
| Lead                                | 100 mg/kg  | -       |
| Zinc                                | 1500 mg/kg | -       |
| Flash Point                         |            | 61 °C   |
| Sulphur                             | 1 %        | -       |

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

Matthew Trueman, EIT  
 Approvals Coordinator  
 Authorizations Branch

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

Tim Leblanc, P. Eng.  
 Manager, Permitting North



Authorizations Branch