



## APPROVAL TO OPERATE

**I-11986**

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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:

**Twin Rivers Pulp Ltd.**  
for the operation of the  
**Edmundston Sulfite and Groundwood Pulpmills & the Saint-Basile  
Effluent Treatment Plant**

Description of Source: **The Edmundston Sulfite and Groundwood Pulpmills  
and the Sainte-Basile Effluent Treatment Plant**

Source Classification: **Air Quality Regulation** **Class 1A**

Parcel Identifier **35147305, 35064930, 35330216**

Mailing Address **27 Rice Street  
Edmundston, NB E3V 1S9**

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

Supersedes Approval: **I-10081**

Valid From: **August 01, 2023**

Valid To: **July 31, 2028**

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

Issued by: \_\_\_\_\_  
for the Minister of Environment and Climate Change

\_\_\_\_\_ Date

**SCHEDULE "A"****A. DESCRIPTION AND LOCATION OF SOURCE**

The Twin Rivers pulpmill facility, located in the City of Edmundston, County of Madawaska and the Province of New Brunswick, including a bleached sulfite pulpmill with a nominal production capacity of 700 air dry tonnes per day and a bleached/unbleached groundwood pulpmill with a nominal production capacity of 360 air dry tonnes per day, is hereby approved to operate, subject to the following:

**B. DEFINITIONS**

1. "Twin Rivers" means Twin Rivers Pulp Ltd. and Twin Rivers is hereby identified as the "operator" of the pulpmill facility pursuant to Section 2 of the *Air Quality Regulation*.
2. The "Department" means the New Brunswick Department of Environment & Local Government and the "Authorizations Branch" means the Authorizations Branch of the Department in Fredericton. The "Grand Falls Regional Office" means the Region 6 Office of the Department in Grand Falls (phone 473-7744, email: elg.region6@gnb.ca).
3. "Statutory holiday" means New Year's Day, Family Day, Good Friday, Easter Monday, Victoria Day, Canada Day, New Brunswick Day, Labour Day, Thanksgiving Day, 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.
4. The Twin Rivers "pulpmill facility" means the bleached sulfite pulpmill and the bleached/unbleached groundwood pulpmill located on multiple properties including the property with the property identification number 35147305 and includes, without limiting the generality of the term, the properties, buildings, equipment and activities associated with operation of the pulpmill facility. The pulpmill facility also includes an effluent treatment plant receiving effluent from the bleached sulfite pulpmill and the bleached/unbleached groundwood pulpmill, and which is located approximately five kilometers east of the pulpmill facility on multiple properties including the property with the property identification number 35064930 in the community formerly known as Saint-Basile. The pulpmill facility is hereby identified as a "source" pursuant to Section 2 of the *Air Quality Regulation - Clean Air Act* and includes, but is not limited to:
  - (a) One Combustion Engineering steam generating boiler, hereinafter referred to as No. 3 Power Boiler, installed in 1958 and re-built in 1996, with a steam rating of 265,000 pounds per hour, burning Bunker C fuel oil;

- (b) Recovery Boiler gas collection and incineration system including piping, gas coolers, moisture separators, instrumentation and all other ancillary equipment necessary for the collection and incineration of gases from the dump tanks, the washer seal tanks and the #1 washer hood.
- (c) One Babcock and Wilcox recovery furnace, hereinafter referred to as No. 5 Recovery Boiler, installed in 1978 with a rated capacity of  $1.0 \times 10^6$  kilograms of red liquor solids per day and with a steam rating of 368,000 pounds per hour, and also approved to burn Bunker C fuel oil, and equipped with two electrostatic precipitators operating in parallel and a ball-bed scrubber;
- (d) One Zurn Nepco cogenerating boiler, hereinafter referred to as No. 8 Co-Gen Boiler, installed in 1996 with a steam rating of 550,000 pounds per hour, burning purchased biomass, knots, primary clarifier sludge, boxboard cores, wood pellets and low sulfur oil and equipped with a EEC electrostatic precipitator;
- (e) Eight batch digesters each with an approximate capacity of 230 cubic meters;
- (f) An Aqua-chem falling film multiple effect evaporator train with six bodies and five effects rated at  $1.1 \times 10^6$  kilograms of red liquor solids per day;
- (g) A vent gas collection system, hereinafter referred to as Vent Gas Collection System No.1, collecting organic vapors and sulfur dioxide rich gases from the weak liquor tanks, the heavy liquor tanks, the acid condensate tank, the acid storage tank, and the acid clarifier, with the collected gases being directed to the windbox of No. 5 Recovery Boiler;
- (h) A vent gas collection system, hereinafter referred to as Vent Gas Collection System No.2, collecting digester off-gases with the collected gases being directed to the No. 5 Recovery Boiler scrubber;
- (i) A vent gas collection system, hereinafter referred to as Vent Gas Collection System No.3, collecting gases from the evaporator seal tanks, with the collected gases being directed to the windbox of No.5 Recovery Boiler;
- (j) A sulfite pulp bleachplant with emissions from the east and west chlorine dioxide (ClO<sub>2</sub>) towers, the bleachery washer and seal tank vent, the ClO<sub>2</sub> tail gas scrubber, the Bingham Box vent, the hypo tower and the chlorine (Cl<sub>2</sub>) washer;
- (k) A scrubber using water to scrub the emissions from the brown stock washing;
- (l) Miscellaneous process emission sources including the digester evacuation fan, the brown stock washer hoods, and the flushing liquor tank; and,
- (m) An aerated stabilization basin (ASB) effluent treatment system located in Saint-Basile.

- 5. The "Code of Practice for Source Testing" means the *New Brunswick Department of the Environment and Local Government Guidance Document for Source Testing* - January 2003 or later revision.
- 6. “**SWIM**” means Environment Canada’s Single Window Information Manager, which is a one-window secure online electronic data reporting system accessible at [www.ghgreporting.gc.ca](http://www.ghgreporting.gc.ca).

**C. EMERGENCY REPORTING**

- 7a. Immediately following the discovery of an *environmental emergency*, Twin Rivers *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 number for the *Department’s* Regional Office is the following:

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

*After hours*, telephone the **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, Twin Rivers shall submit a **Preliminary Emergency Report** to the *Department’s* Central Office and applicable Regional Office using the contact information provided in the table below. The Preliminary Emergency Report shall clearly communicate as much information that is available at the time about the *environmental emergency*.
- 7c. Within five (5) days of the time of initial notification, Twin Rivers shall submit a **Detailed Emergency Report** to the *Department’s* Central Office and applicable Regional Office using the contact information provided in the table 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	Email
Grand Falls Regional Office	(506) 473-7744	<a href="mailto:elg.egl-region6@gnb.ca">elg.egl-region6@gnb.ca</a>
Central Office	-	Approval Engineer

## NON-EMERGENCY REPORTING

8. Twin Rivers shall report by email to the Grand Falls Regional Office and to the Authorizations Branch, by the end of the following work day, unapproved releases of contaminants into the environment, or any other environmental incident or situation which results in violation of the *Clean Air Act*, the *Air Quality Regulation*, or of this Approval, but which is **non-emergency** in nature, or if the non-emergency release, incident or situation has generated a public complaint(s) where the complaint is not related to an environmental emergency from Condition 5(1) or 5(2). The non-emergency report shall include:
- (a) a description of the source, including the name of the person responsible for the source;
  - (b) the nature, extent, duration and environmental impact of the non-emergency release, incident or situation;
  - (c) the cause, or suspected cause, of the non-emergency release, incident or situation;
  - (d) any remedial action taken, or to be taken, to minimize the impact of the non-emergency release, incident or situation;
  - (e) any remedial action taken, or to be taken, to prevent a recurrence of the non-emergency release, incident or situation.

If this information is not available at the time of initial reporting, follow-up non-emergency reports containing this information shall be submitted by email to the Grand Falls Regional Office and to the Authorizations Branch as soon as possible, but in no case later than 10 days after the date of the non-emergency release, incident or situation.

**D. TERMS AND CONDITIONS****9. Annual SO<sub>2</sub> and Particulate Matter (PM) Emission Caps:**

Twin Rivers shall:

- (a) limit the total combined emission of SO<sub>2</sub> from all process and combustion sources within the pulpmill facility to a maximum of 2000 tonnes for any calendar year;
- (b) limit the total combined emission of PM from No.3 Power Boiler, No.4 Woodwaste Boiler, No.5 Recovery Boiler and No.8 Co-Gen Boiler to a maximum of 250 tonnes for any calendar year.

**10. Annual Air Quality Report:**

By January 31<sup>st</sup> of each year, Twin Rivers shall submit to the Authorizations Branch an Annual Air Quality Report, for the previous calendar year, including:

- (a) a table showing the amount of each type of fuel burned including fuel oil, used oil, waste derived fuel, bark, knots, sludges, pulpmill liquor and any other fuel and the % sulfur content of each fuel and the basis for this information;

- (b) for No. 5 Recovery Boiler, the average SO<sub>2</sub> reading from the SO<sub>2</sub> continuous emission monitor (CEM) for the year and the average gas flow and a calculation of the SO<sub>2</sub> emissions for the year;
- (c) an itemized list of all process emission sources (including the release of "off-gases" from Vent Gas Collection System No.1, No.2 and No.3), their annual SO<sub>2</sub> emissions in tonnes and the basis for this data;
- (d) a calculation of the total annual emission of SO<sub>2</sub> in tonnes from the pulpmill facility for the calendar year and in kilograms per tonne of annual production;
- (e) a summary of the particulate stack tests done during the year, a calculation of the annual PM emissions from each boiler, taking into account the operating time of each unit and the total PM emission from the pulpmill facility in tonnes per year and in kilograms per tonne of annual production;
- (f) calculations showing the total annual emission of green house gases in tonnes of CO<sub>2</sub>eq and in kilograms per tonne of annual production;
- (g) the average Cl<sub>2</sub> and ClO<sub>2</sub> reading in ppm from the ClO<sub>2</sub> generator CEM and the average calculated kg/hour and the total release in tonnes for the year from the generator;
- (h) the annual average ambient SO<sub>2</sub>, and the 98<sup>th</sup> percentile of the PM<sub>2.5</sub> measured at the Police Station (formerly known as Cormier School) and St. Mary's Academy monitoring stations;
- (i) a brief statement documenting compliance with the Maine Agreement.

11. **CAAQS Implementation Action Plan**

**By June 30, 2024**, Twin Rivers shall submit an updated action plan to the Department for the achievement of the 2025 Canadian Ambient Air Quality Standards (CAAQS) for SO<sub>2</sub>. The action plan shall include an implementation schedule for the reduction of emissions from the facility, with the objective of meeting the 2025 CAAQS for SO<sub>2</sub> (Management Level of Orange or better).

12. **Air Monitoring Stations**

**Prior to September 30th, 2024**, Twin Rivers shall submit to the Department an assessment of the current air quality monitoring stations to demonstrate that they adequately and accurately measure the impacts of the facility on surrounding air quality. This assessment shall be prepared by a third-party Professional Engineer licensed to practice in New Brunswick. Should the results of the assessment indicate that modifications are recommended, the report shall include a proposal for any changes to instrumentation and/or locations, the rationale for the changes, and a timeline for implementation.

**13. Vent Gas Collection System:**

The Vent Gas Collection System hereinafter referred to as the DNCG (Diluted Non-Condensable Gases) collection system, shall be operated in such a manner so as to effectively collect all such gases, with all collected gases being directed to the recovery boiler furnace chamber, for incineration.

Twin Rivers:

- (a) shall operate Non-condensable Gas Collection System No.1, collecting organic and sulfur dioxide rich gases from the evaporator areas listed in Section B.3(g) and shall direct these gases to the windbox of No.5 Recovery Boiler;
- (b) shall operate Non-condensable Gas Collection System No.2, collecting digester gases from the areas listed in Section B.3(h), and shall direct these gases to the No.5 Recovery Boiler scrubber;
- (c) shall operate Non-condensable Gas Collection System No.3, collecting gases from the evaporator seal tanks, with the collected gases being directed to the windbox of No.5 Recovery Boiler;
- (d) If Vent Gas Collection System No. 1, No. 2 or No.3 is vented to the atmosphere, then the date, the number of minutes of "off-gas venting" for that day and a brief explanation for the venting shall be recorded and reported in the Monthly Air Quality Report.

**14. No. 3 Power Boiler Opacity Meter:**

Twin Rivers shall ensure that No.3 Power Boiler is equipped with a continuous opacity monitor and that the monitor is maintained in a state of good repair and calibration at all times, and is operated at all times that the boiler is operating, except that the monitor may be removed from service for short periods of time for maintenance, calibration and repair. The opacity monitor shall be equipped with alarming capability and the alarm shall be set to alarm at 20% opacity.

Twin Rivers shall ensure that smoke density of the flue gas at the stack exit, including during soot-blowing and starting a new fire, meets the Smoke Density Standards listed in Sections 13 to 15 of the Air Quality Regulation 97-133.

In the event where the stack gas opacity, as measured by the Facility's continuous opacity monitoring equipment, exceeds 20% opacity for more than 4 minutes in any rolling 30 minute period or, exceeds 40% opacity for more than 3 minutes in any rolling 15 minute period or, exceeds 60% opacity at any time, Twin Rivers shall provide a report to the Authorizations Branch by email by the end of the following work day documenting the event and control actions taken to resolve issues and to prevent their reoccurrence.

Twin Rivers shall also ensure that the total opacity minutes (for events where opacity is greater than 20%), does not exceed 100 minutes for any rolling 30 days period.

In the event where the total opacity minutes (for events where opacity is greater than 20%) exceeds 100 minutes for any rolling 30 days period, Twin Rivers shall provide an action plan within 30 days, of the last day of the rolling 30 days 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, to the Authorizations Branch, for its consideration and approval.

15. **No. 3 Power Boiler PM Calculation:**

Twin Rivers shall calculate, using generally accepted engineering estimates, such as EPA AP-42 emission factors, the PM emission rate from No.3 Power Boiler under the maximum firing rate for the year and the average firing rate for the year and shall include the calculation of maximum kg/hr and the actual tonnes per year in the Annual Environmental Report, taking into consideration the number of hours of operation during the year.

16. **No. 5 Recovery Boiler SO2 Limit:**

Twin Rivers shall:

- (a) limit SO<sub>2</sub> emissions from the No.5 Recovery Boiler stack to a maximum of 500 parts per million by volume, at stack conditions, for any 1 hour average;
- (b) notwithstanding (a), in the event that the No.5 Recovery Boiler is in a state where the ID fan, the FD fan and the sulfur burner fan are not in operation the SO<sub>2</sub> concentration in the No.5 Recovery Boiler stack may exceed 500 parts per million but may not exceed 1500 parts per million for any 1 hour average, providing that a report is submitted to the Authorizations Branch by e-mail of the following work day documenting the event and providing sufficient information to demonstrate that there has been no significant emission of SO<sub>2</sub> or impact on the environment;
- (c) notwithstanding (a), in the event that a burndown is necessary to improve the No.5 Recovery Boiler scrubber efficiency, the SO<sub>2</sub> concentration in the No.5 Recovery Boiler stack may exceed 500 parts per million but shall not exceed 1000 parts per million for any 1 hour average, providing that a report is submitted to the Authorizations Branch by the end of the following work day documenting the burndown and providing sufficient information to demonstrate that there has not been a significant impact on the environment.

17. **No. 5 Recovery Boiler SO2 Monitor:**

Twin Rivers shall ensure that the No.5 Recovery Boiler stack is equipped with a continuous SO<sub>2</sub> monitor and that the monitor is maintained in a state of good repair and calibration at all times, and is operated at all times that the boiler is operating, except that the monitor may be taken out of service for short periods of time for maintenance, calibration and repair. The monitor shall be equipped with sufficient data logging capability to provide the one hour average SO<sub>2</sub> reading. The monitor shall be equipped with alarming capability and the alarm shall be set at 400 parts per million of SO<sub>2</sub>.

18. **No. 5 Recovery Boiler PM Limit:**



Twin Rivers shall limit the PM emissions from the No.5 Recovery Boiler stack to a maximum of 100 mg/dscm when tested following the Department's *Code of Practice* and with impinger catch reported, but not included, in the calculation of PM concentration.

19. **No. 5 Recovery Boiler PM Testing:**

Twin Rivers shall perform a minimum of two PM emission tests per year on the No.5 Recovery Boiler stack, with one test being done during the period January 1 to July 31, and one test being done during the period September 1 to December 31, except that if the test done during the period January 1 to July 31 is less than 60 mg/dscm, then the test for the period September 1 to December 31 is not required. Testing shall be done following the Department's *Code of Practice* and with impinger catch reported but not included in the calculation of PM concentration. Testing shall be done during normal boiler operation and a report of the test results and boiler operating conditions, following the format of the *Code of Practice*, shall be included in the following Monthly Report.

20. **No. 8 Co-Gen Boiler Opacity Meter:**

Twin Rivers shall ensure that No.8 Co-Gen boiler is equipped with a continuous opacity monitor and that the monitor is maintained in a state of good repair and calibration at all times, and is operated at all times that the boiler is operating, except that the monitor may be removed from service for short periods of time for maintenance, calibration and repair. The opacity monitor shall be equipped with alarming capability and the alarm shall be set to alarm at 20% opacity.

Twin Rivers shall ensure that smoke density of the flue gas at the stack exit, including during soot-blowing and starting a new fire, meets the Smoke Density Standards listed in Sections 13 to 15 of the *Air Quality Regulation 97-133*.

In the event where the stack gas opacity, as measured by the Facility's continuous opacity monitoring equipment, exceeds 20% opacity for more than 4 minutes in any rolling 30 minute period or, exceeds 40% opacity for more than 3 minutes in any rolling 15 minute period or, exceeds 60% opacity at any time, Twin Rivers shall provide a report to the Authorizations Branch, by the end of the following work day documenting the event and control actions taken to resolve issues and to prevent their reoccurrence.

Twin Rivers shall also ensure that the total opacity minutes (for events where opacity is greater than 20%), does not exceed 100 minutes for any rolling 30 days period.

In the event where the total opacity minutes (for events where opacity is greater than 20%) exceeds 100 minutes for any rolling 30 days period, Twin Rivers shall provide an action plan within 30 days, of the last day of the rolling 30 days 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, to the Authorizations Branch, for its consideration and approval.

21. **No. 8 Co-Gen Boiler PM Limit:**

Twin Rivers shall limit PM emissions from No.8 Co-Gen Boiler to a maximum of 100 mg/dscm when tested following the Department's *Code of Practice* and with impinger catch reported, but not included, in the calculation of PM concentration.

22. **No. 8 Co-Gen Boiler PM Test:**

Twin Rivers shall:

- (a) conduct a minimum of two PM emission tests per year on the No.8 Co-Gen Boiler stack, with one test done during the period January 1 to July 31, and one test being done during the period September 1 to December 31, except that if the test done during the period January 1 to July 31 is less than 60 mg/dscm, then the test for the period September 1 to December 31 is not required. Testing shall be done following the Department's *Code of Practice*, and with impinger catch reported but not included in the calculation of PM concentration. Testing shall be done during normal boiler operation and a report of the test results and boiler operating conditions, following the format of the *Code of Practice*, shall be included in the following Monthly Report;
- (b) measure the SO<sub>2</sub> emission rate from No.8 Co-Gen Boiler stack at the time of the PM test. The bark feedrate, the oil feed rate and the ash generation rate shall be estimated and a sulfur mass balance done for the day of the test.

23. **No. 8 Co-Gen Boiler Nitrogen Oxides (NOX) Limit:**

Twin Rivers shall limit the emission of NOX, expressed as NO<sub>2</sub>, from No.8 Co-Gen Boiler to less than 160 kg/hour when firing bark or combination fuels, and to less than 140 kg/hour when firing oil only.

24. **No. 8 Co-Gen Boiler NOX Monitor:**

Twin Rivers shall ensure that the No.8 Co-Gen Boiler stack is equipped with a continuous NOX monitor and that the monitor is maintained in a state of good repair and calibration at all times, and is operated at all times that the boiler is operating, except that the monitor may be removed from service for short periods of time for maintenance, calibration and repair. The NOX monitor shall be equipped with sufficient data logging capability to provide a record of the kg/hr of NOX emitted from the boiler. The NOX monitor shall be equipped with alarming capability and the alarm shall be set to alarm at 120 kg/hr of NOX.

25. **No. 8 Co-Gen Boiler Sulfur in Fuel Limit:**

Twin Rivers shall not burn in No.8 Co-Gen Boiler fuel oil with a sulfur content greater than 0.5%, except that, in cases of supply shortages of low sulfur fuel oil which are beyond the control of Twin Rivers, the Authorizations Branch may waive this requirement subject to further Terms & Conditions as deemed appropriate.

26. **No. 8 Co-Gen Boiler Bark Quality:**

Twin Rivers shall not burn woodwaste that has come in contact with salt water, or any other salt source, in No. 8 Co-Gen Boiler.

27. **No. 8 Co-Gen Boiler ESP Operation:**

Twin Rivers shall not operate the No.8 Co-Gen Boiler ESP in "energy conservation" mode.

28. **Burning of Miscellaneous Fuels:**

Twin Rivers:

- (a) may burn in No. 4 Woodwaste Boiler and/or in No. 8 Co-Gen Boiler small quantities of oily waste, spilled oil, commercial absorbents approved by the Authorizations Branch, oily rags, bark or sawdust used to absorb spilled oil, such as might result from regular maintenance work or the cleanup of small spills, providing that these materials are added directly to the woodwaste stream to the boilers and are not exposed to rain;
- (b) may burn in No.4 Woodwaste Boiler and/or in No. 8 Co-Gen Boiler boxboard core waste such as might be produced from normal trim operations. Other core material may be burned following review and approval by the Authorizations Branch;
- (c) may burn wood pellets in No. 8 Co-Gen Boiler;
- (d) may burn, in No.3 Power Boiler, No. 4 Woodwaste Boiler, No.5 Recovery Boiler and/or in No. 8 Co-Gen Boiler used oil providing the used oil is burned in accordance with the *Used Oil Regulation*;
- (e) may burn Waste Derived Fuel providing that a copy of the test results referred to in paragraph 14(2)(b) of the *Used Oil Regulation* for each delivery of waste derived fuel is filed onsite.

29. **Maine Agreement:**

*Twin Rivers* shall notify the *Department* by the end of the following work day if the No.7 Boiler in Madawaska, Maine, is operated, and/or, if the No.6 Boiler in Madawaska, Maine, operates other than as approved in the State of Maine Air Emission License known as the Title 5 Permit or later revision.

30. **Operation of Bleachplant:**

Twin Rivers shall operate the bleachplant as follows:

- (a) Twin Rivers shall operate the ClO<sub>2</sub> generator tailgas scrubber at all times that the ClO<sub>2</sub> generator is in operation for the purpose of minimizing Cl<sub>2</sub> and ClO<sub>2</sub> emissions to the atmosphere;

- (b) Twin Rivers shall ensure that the exit breaching of the ClO<sub>2</sub> generator tailgas scrubber is equipped with a continuous Cl<sub>2</sub> and ClO<sub>2</sub> emission monitor and that the monitor is maintained in a state of good repair and calibration at all times, and is operated at all times that the ClO<sub>2</sub> generator is operated except that the monitor may be removed from service for short periods of time for maintenance, calibration and repair. The monitor shall be equipped with sufficient data logging capability to provide the hourly average emission of Cl<sub>2</sub> and of ClO<sub>2</sub>. The monitor shall have alarming capability and the alarm shall be set at 3.0 kg/hr of Cl<sub>2</sub> and 3.0 kg/hour of ClO<sub>2</sub>;
- (c) Twin Rivers shall limit the emissions from the ClO<sub>2</sub> generator stack to a maximum of 4.0 kgs/hr of Cl<sub>2</sub> and to a maximum of 4.0 kgs/hr of ClO<sub>2</sub>;
- (d) if visible green or yellow emissions are observed from the ClO<sub>2</sub> generator tail gas scrubber stack or any other bleachplant stack, but the Cl<sub>2</sub> and ClO<sub>2</sub> monitor does not exceed 4 kg/hour, Twin Rivers shall report this event to the Grand Falls Regional Office and the Authorizations Branch by fax by the end of the following working day;
- (e) by September 30, 2014, Twin Rivers shall submit to the Authorizations Branch a report summarizing the kg/hr of Cl<sub>2</sub>, ClO<sub>2</sub> and chloroform emitted from all sources associated with the bleachplant under normal operation. Included in the report shall be a summary of the annual emissions from the ClO<sub>2</sub> generator based on the CEM readings.

31. **Ambient Air Quality Monitoring:**

Twin Rivers shall:

- (a) ensure that the ambient air quality monitoring stations and associated infrastructure are designed, constructed, operated, and maintained in compliance with the New Brunswick latest version of the Guidance Manual for Industry-Operated Ambient Air Quality Monitoring Networks.
- (b) operate an ambient EPA certified SO<sub>2</sub> monitor (installed, maintained, and operated in accordance with quality assurance requirements provided by the Department) near the Police Station (formerly known as the Cormier School) with continuous feedback to the mill and equipped with sufficient data logging capability to provide 5-minute averages, one-hour averages (calculated from the 5 minute data), 24-hour running average and annual average reading for SO<sub>2</sub> expressed in parts per billion at standard conditions; and, an EPA certified PM<sub>2.5</sub> monitor configured to provide the one hour averages and 24 hour average PM<sub>2.5</sub> readings based on the midnight to midnight time period, expressed in micrograms per cubic meter.

- (c) operate an ambient EPA certified SO<sub>2</sub> monitor (installed, maintained, and operated in accordance with quality assurance requirements provided by the Department) at the St. Mary's Academy with continuous feedback to the mill and equipped with sufficient data logging capability to provide 5-minute averages, one-hour averages (calculated from the 5-minute data), 24-hour running average and annual average reading for SO<sub>2</sub> expressed in parts per billion at standard conditions.
- (d) collect meteorological data from a source acceptable to the Authorizations Branch, so as to provide wind speed and wind direction with continuous feedback to the mill.
- (e) Twin Rivers shall include a summary of the findings in the Monthly Air Quality Report;

32. **Saint-Basile ASB Air Quality:**

Twin Rivers shall:

- (a) operate the Saint-Basile ASB such that the ambient standards of Schedule B of the Air Quality Regulation and the Requirements of Section 6 of the Clean Air Act are met;
- (b) if, in the opinion of the Authorizations Branch, (a) above is not being met, then Twin Rivers shall submit, within 60 days of having been notified by the Authorizations Branch, the design of an ASB Air Quality Monitoring Study for review and approval. The design shall generally follow the format of previously submitted ASB Air Quality Monitoring Studies. The approved study shall be completed as directed by the Authorizations Branch.

33. **Monthly Air Quality Report:**

By the end of the following month, Twin Rivers shall submit a Monthly Air Quality Report for the previous month to the Authorizations Branch and to the Grand Falls Regional Office, which may be in electronic format, containing the following information:

- (a) a cover letter signed by a Company official stating that the Monthly Air Quality Report has been reviewed and is felt to be an accurate reporting of the activities at the Twin Rivers pulpmill facility that month;
- (b) a summary of the environmental performance for the month including any violations of the *Air Quality Regulation* or of this Approval and summary of any Emergency or Non-emergency incidents reported pursuant to Conditions 5 or 6;

- (c) for No.3 Power Boiler and No.8 Co-Gen Boiler, the number of minutes per half hour that the opacity has exceeded 20%, the number of minutes per quarter hour that the opacity has exceeded 40%, the number of minutes for the month that the opacity has exceeded 60% and the date and time that these occurred;
  - (d) a table showing the average hourly SO<sub>2</sub> concentration in parts per million by volume at stack conditions from the No.5 Recovery Boiler stack and noting any periods where there has been a burn-down or power failure resulting in readings greater than 500 parts per million;
  - (e) a table showing the average NO<sub>x</sub> emission in kg/hour and parts per million from No.8 Co-Gen Boiler and, if the NO<sub>x</sub> is greater than 140 kg/hr, noting whether this was as a result of firing bark or combination fuels;
  - (f) the results of any particulate emission tests done that month following the format of the *Code of Practice*;
  - (g) the number of hours that No.3 Power Boiler operated during the month;
  - (h) a summary of any operating problems related to the continuous stack emission monitoring devices, pollution control equipment, or ambient monitoring equipment;
  - (i) the one hour average and 24 hour running average of SO<sub>2</sub> readings from the Police Station (formerly known as the Cormier School) and St. Mary's Academy ambient SO<sub>2</sub> monitoring stations, including a year to date summary and a summary of any violations of the ambient air quality standards;
  - (j) a table showing the wind speed and wind direction data collected by Twin Rivers;
  - (k) a summary of the Cl<sub>2</sub> and ClO<sub>2</sub> emissions measured by the bleachplant CEM in units of parts per million and kg/hr;
  - (l) a summary of offgas venting incidents from Condition 10(d) and the total number of minutes of venting for the month; and
  - (m) a table showing the 24 hour average, from midnight to midnight, of the PM<sub>2.5</sub> readings from the Police Station (formerly known as the Cormier School) ambient fine particulate monitor.
34. Twin Rivers shall ensure that odour or dust released 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 affecting any off-site receptor, Twin Rivers may be required to 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.

35. **By June 01 of each year**, Twin Rivers shall submit a greenhouse gas emissions report for the previous calendar year, to the Department by means of the SWIM system. Reporting shall be consistent with Environment Canada's Greenhouse Gas Emissions Reporting Program (GHGRP). Reporting requirements are published annually in the Canada Gazette, Part 1 under the authority of subsection 46(1) of the *Canadian Environmental Protection Act, 1999* (CEPA 1999).
36. **Prior to October 31, 2024**, Twin Rivers shall prepare and submit a revised Greenhouse Gas Management Plan to the Department in accordance with the Guidelines for Greenhouse Gas Management for Industrial Emitters in New Brunswick, July 2015, or as may be updated from time to time. The Greenhouse Gas Management Plan shall be renewed every 5 years, as a minimum.
37. **By July 01 of each year**, Twin Rivers shall prepare and submit an Annual Greenhouse Gas Progress Report to the Department by July 1<sup>st</sup> of each year, for the previous calendar year, in accordance with the Guidelines for Greenhouse Gas Management for Industrial Emitters in New Brunswick.

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