



APPROVAL TO OPERATE

I-8929(Amended December 7, 2015)

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

New Brunswick Power Corporation

for the operation of the

Belledune Thermal Generating Station

Description of Source:

Operation of the 490 MWe Belledune Thermal Generating Station, fuelled by coal and equipped with an electrostatic precipitator and a flue gas desulphurization system

Source Classification:

Air Quality Regulation

Class 1A

Parcel Identifier:

20598090, 20616322, 20252326

Mailing Address:

515 King St.

P. O. Box 2000

Fredericton, NB E3B 5G4

Conditions of Approval:

See attached Schedule "A" of this Approval

Supersedes Approval:

I-6923

Valid From:

July 01, 2015

Valid To:

June 30, 2020

Recommended by: _____

Environment Division

Issued by: _____

for the Minister of Environment and Local Government

_____ Date

SCHEDULE "A"

A. DESCRIPTION AND LOCATION OF SOURCE

The New Brunswick Power Corporation operates the Belledune Thermal Generating Station in Belledune, N.B. The station generates electricity from the combustion of coal in one boiler producing approximately 490 megawatts of electricity. Flue gases from the combustion reaction are directed to an electrostatic precipitator for the removal of particulate matter, and then to a flue gas desulphurization system for the scrubbing of sulphur dioxide. In general, the facility consists of coal conveying and handling equipment, a boiler, an electrostatic precipitator, a flue gas desulphurization system, a turbine/generator assembly, and associated equipment.

There exist *potential* environmental impacts to the atmosphere from the emission of particulate matter from the coal conveying and handling equipment, of particulate matter from the combustion of coal in the boiler, and of combustion exhaust gases such as sulphur dioxide and nitrogen oxides from the combustion of coal in the boiler.

The operation of the Belledune Thermal Generating Station, located at 1558 Main Street, in the Village of Belledune, County of Gloucester, and the Province of New Brunswick and referenced by parcel identifiers (PIDs) 20598090, 20252326 and 20616322, is hereby approved under the *Air Quality Regulation - Clean Air Act* **subject to the following:**

B. DEFINITIONS

1. **"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.

2. **"Approval Holder"** means New Brunswick Power Corporation.
3. **"Department"** means the New Brunswick Department of Environment and Local Government.
4. **"Director"** means the Director of the Impact Management Branch of the Department of Environment and Local Government and includes any person designated to act on the Director's behalf.
5. **"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.
6. **"Facility"** means the property, buildings, and equipment as identified in the Description of Source above, and all contiguous property in title to the Approval Holder at that location, including but not limited to the following equipment, machinery, units and operation associated therewith:
 - 1) COAL UNLOADING, CONVEYING AND STORAGE - Imported coal is unloaded from ships at the Port of Belledune by a continuous ship unloader at a rate of 1750 tonnes per hour, and transported by enclosed conveyor belts to a fully-enclosed coal dome with a storage capacity of 120,000 tonnes of coal. The imported coal is then mixed with petroleum coke. The coal is then transported via enclosed conveyor belts to the coal bunkers, and then to the pulverizers where it is ground into a fine powder and finally combusted in the power boiler;
 - 2) POWER BOILER - One Combustion Engineering Canada Inc. forced circulation, balanced draft steam generating boiler rated at 490 MWe, designated as Unit #2, equipped with dry low-NOx burners, burning imported coal as the primary fuel and petroleum coke as a blended supplemental fuel, and producing at maximum continuous rating 1,560,000 kilograms per hour of steam at 17,900 kPa and 540°C;

- 3) TURBINE / GENERATOR ASSEMBLY - One turbine/generator assembly manufactured by Toshiba Corporation, rated at 490 MWe, which converts the heat energy from the steam into mechanical energy, and then converts the mechanical energy from the rotation of turbine into electricity;
- 4) ELECTROSTATIC PRECIPITATOR - One Asea Brown Boveri - Flakt electrostatic precipitator consisting of two banks of rigid coils and plates in parallel, designed to remove up to 99.5% of particulate matter from the flue gas;
- 5) FLUE GAS DESULPHURIZATION (FGD) SYSTEM - One Noell KRC flue gas desulphurization system (wet scrubber) using a limestone slurry as its scrubbing medium, which removes sulphur dioxide from the flue gas. The FGD system is rated at $664 \text{ m}^3/\text{s}$ (1,406,940 ACFM) at temperatures between 134 and 143°C, and designed to remove more than 90% of the sulphur dioxide in the flue gas;
- 6) STACK - One 168 metre (550 foot) stack used to exhaust flue gases from the station to the atmosphere. The stack has an exit diameter of 6.86 metres (22.5 feet), with gases exhausting at an approximate exit velocity of 14 metres per second and approximate exit temperature of 50°C;
- 7) OPACITY MONITOR - One double-pass opacity monitor manufactured by United Sciences Inc. is located in the duct downstream from the precipitator to measure the opacity of the flue gas;
- 8) CONTINUOUS EMISSION MONITOR - One dilution-type continuous emission monitoring (CEM) system manufactured by Graseby STI is located in the stack downstream from the flue gas desulphurization system to measure emission levels of sulphur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and carbon dioxide (CO₂) to the atmosphere. Oxygen (O₂) and carbon monoxide (CO) are also measured for combustion control purposes within the boiler;

- 9) **AUXILIARY BOILER** - One auxiliary boiler manufactured by Nebraska Boiler Company is fuelled by No. 2 fuel oil as its primary fuel, and is occasionally used as an emergency heating system for the station when the power boiler is not in operation. The auxiliary boiler produces at maximum continuous rating 45,360 kilograms per hour at 1,724 kPa and 250°C, and exhaust gases are emitted to atmosphere via a stack with overall height of 88.1 metres (289 feet) and a diameter of 1.22 metres (4.0 feet); and
- 10) **DIESEL GENERATOR** - One Caterpillar Inc. emergency diesel generator rated at 1,750 kW, used for the emergency supply of power, burning Type B winter grade diesel fuel and operating at 60 Hz;
7. **"Inspector"** means an Inspector designated under the *Clean Air Act*, the *Clean Environment Act*, or the *Clean Water Act*.
8. **"Minister"** means the Minister of Environment and Local Government and includes any person designated to act on the Minister's behalf.
9. **"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.
10. **"statutory holiday"** means New Year's 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.
11. **"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.

12. **"720 hour rolling average"** means, for each pollutant, the average of the consecutive hourly mean emission rates, determined for the preceding 720 hours of Facility operation. Intervals of time where the emission rate is at or near zero, when the Facility is not in operation, are not to be included in the calculation of the rolling average.

C. EMERGENCY REPORTING

13. Initial Notification

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 Bathurst 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 Bathurst Regional Office is provided below:

Bathurst Regional Office (506) 547-2092

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

14. Follow-Up

Within 24-hours of the time of initial notification, a **Preliminary Emergency Report** shall be filed via email by a designate representing the Approval Holder to the Department's Bathurst Regional Office *as well as* to the Department's Central Office. The Preliminary Emergency Report shall clearly communicate all information available at the time about the environmental emergency.

Within five (5) days of the time of initial notification, a **Detailed Emergency Report** shall be filed via email by a designate representing the Approval Holder to the Department's Bathurst Regional Office *as well as* to the Department's Central Office.

The **Detailed Emergency Report** shall include, as a 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.

D. GENERAL INFORMATION

- 15. 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 herein stated constitutes a violation of the *Clean Air Act*.
- 16. The issuance of this Approval does not relieve the Approval Holder from compliance with any other applicable federal or provincial Acts and regulations as well as with guidelines issued pursuant to regulations.
- 17. The terms and conditions of this Approval are severable. If any term or condition of this Approval is held invalid, is revoked or is modified, the remainder of the Approval shall not be affected.

18. If, in the opinion of the Minister, the environmental impact of the Facility is unacceptable, the Minister reserves the right to cancel this Approval and issue a new Approval as deemed necessary.
19. An Inspector, at any reasonable time, has the authority to inspect the Facility and carry out such duties as defined in the *Clean Air Act*, the *Clean Environment Act* or the *Clean Water Act*.

E. TERMS AND CONDITIONS

GENERAL CONDITIONS

20. This Facility has been classified as a **Class 1A** source, pursuant to Part V of the *Air Quality Regulation, New Brunswick Regulation 97-133* filed under the *Clean Air Act*. The Approval Holder shall pay the appropriate annual fee **on or before April 1 of each year**.
21. In addition to any requirements under the *Environmental Impact Assessment Regulation - Clean Environment Act*, the Approval Holder shall notify the Minister in writing of any plans to make physical changes or changes to 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. The Approval Holder shall make such application in a form acceptable to the Minister **at least two hundred and forty (240) days** prior to the planned construction or modification of the source.
22. In addition to any requirements under the *Environmental Impact Assessment Regulation - Clean Environment Act*, in the event of Facility closure, the Approval Holder shall notify the Minister **at least six (6) months** prior to such 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.

23. The Approval Holder shall immediately notify the Minister in writing of any change in its name or address.
24. The Approval Holder shall conduct performance tests on atmospheric emissions of contaminants or ambient air quality at such times and in such a manner as the Department may, in writing, require.
25. The Approval Holder shall ensure that all air pollution control equipment, including but not limited to the dry low-NO_x burners, the electrostatic precipitator, the flue gas desulphurization system, and other associated equipment, is fully functional and in operation at all times during which the Facility is in continuous steady-state operation.
26. The Approval Holder shall ensure that particulate control equipment is in operation whenever the associated boiler is in continuous steady-state operation at or above minimum load. Smoke density of the flue gas at the stack exit, including during soot-blowing and starting a new fire shall be consistent with the Smoke Density Standards listed in Sections 13 to 15 of the *Air Quality Regulation 97-133*.

EMISSION LIMITS

27. The Approval Holder shall limit the mean rate of release of particulate matter from the stack to no more than 160 milligrams of particulate per cubic metre of dry flue gas at reference conditions of 25°C and 101.3 kPa and corrected to 3% oxygen.
28. The Approval Holder shall limit the rate of release of nitrogen oxides, meaning all nitrogen oxides except nitrous oxide and collectively expressed as nitrogen dioxide, from the stack to no more than 258 nanograms per Joule (0.6 lb/MMBTU) of heat input to the boiler as determined by the 720 hour rolling average, with a target of having no hourly average of more than 400 nanograms per Joule (0.93 lb/MMBTU) of heat input.

29. The Approval Holder shall limit the rate of release of sulphur dioxide from the stack to no more than 258 nanograms per Joule (0.6 lb/MMBTU) of heat input to the boiler as determined by the 720 hour rolling average, with a target of having no hourly average greater than 400 nanograms per Joule (0.93 lb/MMBTU) of heat input.
30. The Approval Holder shall ensure that the total annual emissions of mercury from all stacks at the Facility do not exceed 25 kilograms of mercury per calendar year.

EPISODE CONTROL

31. The Approval Holder shall control the emission of fugitive dust from the operation of the Facility, including but not limited to dust generated from the unloading, conveying, crushing, pulverizing, and storage of coal, limestone, gypsum or any other raw material or by-product, as well as from heavy equipment traffic on the site and transportation of such materials off-site. The Approval Holder shall use appropriate dust control measures including but not limited to the use of enclosed conveying and storage facilities for raw materials and by-products, the use of tarps for transportation by truck or rail of bulk materials, the paving and cleaning of roads or the spraying of roads with approved dust suppressants, the scheduling of activities that have the potential to generate large quantities of fugitive dust during low wind speed periods, or other such measures such that the Maximum Permissible Ground Level Concentration for Total Suspended Particulate as specified in Schedule B of the *Air Quality Regulation*, as may be amended from time to time, is not violated beyond the boundaries of the Facility.

FUEL QUALITY AND HANDLING

32. The Approval Holder shall be permitted to burn coal as the primary fuel for this Facility, including imported coal and petroleum coke, or any mixture or blend of such materials at any ratio, provided that the emission rate of sulphur dioxide does not exceed the limits as established in Condition 28 above.

33. The Approval Holder shall be permitted to burn No. 6 fuel oil as a secondary fuel at the Facility. The sulphur content of No. 6 fuel oil shall not exceed 3.0% sulphur by weight.
34. The Approval Holder may use No. 2 fuel oil as an ignition fuel at the Facility. The sulphur content of No. 2 fuel oil shall not exceed 0.5% sulphur by weight.

TESTING AND MONITORING

35. The Approval Holder shall maintain and operate an Ambient Air Quality Monitoring Network consisting of five fixed sulphur dioxide monitors and two nitrogen oxides monitors capable of continuous feedback to the facility and one meteorological tower measuring wind speed and wind direction and capable of continuous feedback to the facility, at locations acceptable to the Minister. The Approval Holder shall, on a quarterly basis, provide to the Minister a summary of ambient air quality concentrations of pollutants. Data shall be quality assured and made available electronically, wherever possible, in a format suitable to the Minister.
36. The Approval Holder shall maintain and operate two ambient total suspended particulate matter monitoring stations and two ambient fine particulate matter monitoring stations measuring PM_{2.5}, at locations and in a manner approved by the Department.
37. The Approval Holder shall continue to assist the Minister in the operation of the Provincial Acid Rain Deposition Monitoring Network. Such assistance shall be in accordance with the terms and conditions stipulated in the letter dated September 16, 2008, from the Director of the Sciences and Reporting Branch of the Department of Environment to the Director of Environment and Business Services of NB Power Holding Corporation and as may be amended from time to time.

38. The Approval Holder shall operate a Continuous Emission Monitoring system (CEMs) at a point downstream of any air pollution control equipment, to continuously measure the rates of release of sulphur dioxide and nitrogen oxides in the flue gas. The CEMs shall be equipped with a hardcopy recording device or with software to store historical data for later use. Records of such measurements shall include the hourly and calculated 720 hour rolling average emission rate of sulphur dioxide and nitrogen oxides (expressed as nitrogen dioxide) in units of nanograms per joule of heat input and in kilograms per hour. Records shall be retained for a period of two years and made available quarterly, wherever possible, in an electronic format suitable to the Minister. Further, the performance of such CEMs shall be evaluated quarterly by Cylinder Gas Audit, and annually by Relative Accuracy Test Audit, in accordance with the Environment Canada report "Protocols and Performance Specifications for Continuous Emission Monitoring of Gaseous Emissions from Thermal Power Generation".

39. The Approval Holder shall operate a continuous opacity monitor at a point downstream of the electrostatic precipitator at all times during which the Facility is in continuous operation. Such opacity monitor shall be equipped with hardcopy readout or with software to store historical data for later use, and shall be capable of continuous feedback to the control room of the Facility. The opacity monitor shall be consistent with design and operation specifications as outlined in Environment Canada Standard 1-AP-75-2 "Standard Reference Methods for Source Testing: Measurement of Opacity of Emissions from Stationary Sources", and shall be cleaned and calibrated at such a frequency so as to ensure accurate measurement of the opacity of emissions. Records shall be retained for a period of two years, and presented to an Inspector upon request.

40. The Approval Holder shall undertake a Source Testing campaign at least once per calendar year to determine the emission rates and concentrations of particulate matter, including fine particulate matter (PM_{2.5} and PM₁₀), sulphur dioxide, and nitrogen oxides in the flue gas from the Facility. As well, the emission rate and concentration of thallium in the flue gas shall be determined via analysis of the particulate matter captured during source testing. A detailed description of the test methods to be used shall be submitted to the Department for approval at least four (4) weeks in advance of the planned testing dates. A summary of the test results shall be submitted to the Department for review within six (6) weeks of the testing. As a minimum, the summary shall include: the calculated emission rates for each pollutant reported in nanograms per Joule of heat input and in kilograms per hour, and concentrations in milligrams per cubic metre at reference conditions of 25°C and 101.3 kPa and corrected to 3% oxygen; detailed readings from the opacity monitor and CEMs for the duration of the test; and other pertinent operating information. For the purposes of these tests, the testing and reporting shall be performed according to Sections 16 to 18 of the *Air Quality Regulation*.

41. **Prior to December 31, 2016, and again prior to December 31, 2019**, the Approval Holder shall undertake source testing campaigns to determine the emission rate and concentration of mercury and mercury compounds from the Facility. The testing shall be performed at a point following the flue gas desulphurization system, and shall include a determination of mercury emitted in gaseous form as well as mercury carried through with the particulate emissions. Such testing shall be conducted according to methodology acceptable to the Department. A detailed description of the methodology to be used shall be submitted to the Department for approval at least four (4) weeks in advance of the planned testing dates. A summary of the test results shall be submitted to the Department within six (6) weeks following the testing, and shall include pertinent operating information such as the operating load during the test, the characteristics of the coal including the mercury content of the coal being burned during the testing, the mercury content of the gypsum generated from the flue gas desulphurization system and the mercury content and hourly removal rate of particulate matter removed by the electrostatic precipitators.

42. **One week per month**, the Approval Holder shall collect a weekly composite sample of coal, ash and gypsum and have the composite samples analyzed for mercury content. The results of this mercury testing shall be included in quarterly air quality report in accordance with condition 53 of this Approval.

MISCELLANEOUS

43. The Approval Holder shall be permitted to operate an auxiliary boiler for the purposes of emergency steam supply for space heating at the Facility, in such cases where the power boiler is not available for such purposes. The Approval Holder shall also be permitted to operate an emergency diesel generator for the purposes of providing emergency power supply to the Facility. In such cases, the auxiliary boiler or the emergency diesel generator shall be operated solely using No. 2 fuel oil or similar light fuel having a sulphur content not exceeding 0.5% sulphur by weight.

REPORTING

44. In the event that any of the stack emission limits stipulated in conditions 28 and 29 of this Approval are exceeded, as measured by the Facility's continuous emissions monitors, the Approval Holder shall **immediately report** the exceedance in accordance with the **Emergency Reporting section** of this Approval.
45. In the event that any of the maximum permissible ground level concentrations stipulated in the *Air Quality Regulation - Clean Air Act* are exceeded while the boiler is in operation, as measured by the Facility's ambient air quality monitoring network, the Approval Holder shall **immediately report** the exceedance in accordance with the **Emergency Reporting section** of this Approval.
46. Unless otherwise stipulated in this Approval, in the event the Approval Holder violates any Term and/or Condition of this Approval and/or violates the *Air Quality Regulation*, the Approval Holder is to **immediately report this violation by email** to the Department's Bathurst 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.

47. In the event that the flue gas desulphurization (FGD) system is by-passed for any reason, the Approval Holder shall **immediately report** to the Department, **as per condition 46 of this Approval**, any incident 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, exceeds 40% opacity for more than 3 minutes in any rolling 15 minute period or exceeds 60% opacity at any time.
48. Notwithstanding condition 47 above, in the event that the FGD system is by-passed and there has been visual verification by the Approval Holder that there are no emissions of black smoke at the stack exit then the Approval Holder **is not required** to report an opacity exceedance, as described in condition 47 of this Approval, to the Department.
49. In the event that the FGD system is by-passed and due to weather conditions, such as fog or darkness, it is not possible to visually verify that there are no emissions of black smoke at the stack exit then the Approval Holder **is required to immediately report** an opacity exceedance, as described in condition 47 of this Approval, to the Department **using the procedure outlined in condition 46 of this Approval**.
50. In the event that there is an opacity exceedance, as described in condition 47 of this Approval, and the FGD system is in service with all flue gas being directed through the FGD system then the Approval Holder **is not required** to report such an opacity exceedance to the Department.
51. In the event that any of the continuous emission monitors, any of the continuous opacity monitors or any of the ambient air quality monitors are out of service during the operation of any of the units, the Approval Holder shall **report** the incident **by email** to the Department's **Bathurst Regional Office and Central Office in Fredericton within one business day**. For the purposes of this Approval, out of service does not include routine maintenance or calibrations performed on the monitoring equipment or loss of communication links between the generating station and any of the ambient air quality monitors.

52. In the event the Approval Holder receives complaints from the public regarding unfavourable environmental impacts associated with the Facility, the Approval Holder shall **report** all complaints received by the end of the **next normal business day via email** to the Department's **Bathurst Regional Office and the Central Office in Fredericton**.
53. **Within 90 days of the end of each quarter**, the Approval Holder shall submit for the previous calendar quarter a quarterly report of the time, duration, cause and remedial action taken for any abnormal or upset condition; a summary on the operation of the facility including any period during which the power boiler was not available and any change in the maximum continuous rating; the type and amounts of fuel burned during the quarter and its associated sulphur, mercury, ash, and energy contents; mercury content of ash and gypsum; all quality assured ambient air quality data from the Ambient Air Quality Monitoring Network; and all quality assured CEMs data for sulphur dioxide and nitrogen oxides, including any hourly and 720 hour rolling average emission levels of each contaminant in excess of 400 and 258 nanograms per Joule respectively. Wherever possible, such quarterly reports shall be made electronically using software and formats mutually agreed to by the Approval Holder and the Department.
54. **By February 15 of each year**, the Approval Holder shall submit an annual report to the Department with respect to the Facility to include, as a minimum, the following information: the types and amounts of each fuel burned; the average sulphur, ash, and mercury contents; the heating value of the fuel; and the resulting annual emission rate of particulate matter, sulphur dioxide, nitrogen oxides and mercury for the calendar year just ended. Wherever possible, such a report shall be made electronically using software and formats mutually agreed to by the Approval Holder and the Department.

55. **By March 31 of each year**, the Approval Holder shall submit a detailed annual air quality report to the Department with respect to the Facility to include summary information concerning any violations reported during the year and the remedial action taken; the calculated unit annual Capacity Factor; a summary concerning the operation of the ambient air quality monitoring stations; a summary concerning any source testing activities conducted during the year; and a summary concerning the operation of all CEMs for the calendar year just ended, including the CEM system performance as evaluated in accordance with the Environment Canada report "Protocols and Performance Specifications for Continuous Monitoring of Gaseous Emissions from Thermal Power Generation EPS 1/PG/7". Wherever possible, such a report shall be made electronically using software and formats mutually agreed to by the Approval Holder and the Department.
56. **By March 31 of each year**, the Approval Holder shall submit to the Department, a report containing complete hourly data from all ambient air monitoring analyzers for this Facility for the preceding calendar year. The report shall be submitted in electronic form and in a format acceptable to the Department. Prior to submittal, all data reported under this section shall be screened and quality controlled in a manner acceptable to the Department. For all gaseous pollutants, the monitoring results shall be reported in parts per billion. Hourly data shall be reported with a numerical precision of 1 part per billion and monthly or annual averages shall be reported with a numerical precision of 0.1 parts per billion. For particulate matter, results shall be reported in micrograms per cubic metre.
57. **Beginning in 2016**, the Approval Holder shall submit a greenhouse gas emissions report by June 1st of each year, 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).
58. **Prior to November 1st, 2016**, the Approval Holder shall prepare and submit a 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.

59. **Beginning in 2017**, the Approval Holder shall prepare and submit an Annual Greenhouse Gas Progress Report to the Department by July 1st 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: _____

Mark Glynn, P.Eng.

Manager, Industrial Processes