

# **The Reporting and Reduction of Greenhouse Gas Emissions Standard**

**New Brunswick Department of Environment and Local Government**

**August 2022**

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## 1. Introduction

This Standard is adopted under the *Reduction of Greenhouse Gas Emissions Regulation – Climate Change Act* (the Regulation).

The *Reduction of Greenhouse Gas Emissions Regulation – Climate Change Act* and *The Reporting and Reduction of Greenhouse Gas Emissions Standard* (the Standard) came into effect January 1, 2021. The Regulation and the Standard establish emission intensity targets for large industrial emitters in New Brunswick. These requirements are a fulfilment of the commitments made in New Brunswick’s 2016 *Climate Change Action Plan – Transitioning to a Low-Carbon Economy*, of setting emissions limits on the province’s largest industrial emitters while taking into consideration impacts on trade-exposed and energy-intensive industries and ensuring that these measures are effective in reducing greenhouse gas (GHG) emissions and are fair and equitable.

### 1.1 Purpose of this Standard

This Standard has been developed to (i) provide facilities with the necessary information to report their GHG emissions to New Brunswick, and (ii) provide regulated facilities under the New Brunswick Output-Based Pricing System (NB OBPS) with the necessary information to:

- Register in the NB OBPS;
- Complete and submit a Baseline Emissions Intensity submission;
- Complete and submit a Greenhouse Gas Emissions Report; and,
- Complete and submit a Compliance Report.

To this end, the Standard is divided into sections, each of which provides detailed information and guidance for each of the above topics.

### 1.2 Additional Contact

Additional information regarding this Standard or regulation of industrial emissions in New Brunswick can be obtained directly from the New Brunswick Climate Change Secretariat:

CLIMATE CHANGE SECRETARIAT  
P. O. BOX 6000, MARYSVILLE PLACE  
FREDERICTON, NB, E3B 5H1

Phone: (506) 453-7945; Fax: (506) 453-2390

Email: [NBOBPS-STFRNB@gnb.ca](mailto:NBOBPS-STFRNB@gnb.ca); Website: [www.gnb.ca/environment](http://www.gnb.ca/environment)

## 2. Definitions

“Accredited verification body” means a verification body that is accredited in accordance to ISO 14065 by either the Standards Council of Canada (SCC) or the American National Standards Institute (ANSI).

“Act” means the *Climate Change Act*.

“Authorized signing officer” means the owner or operator of the regulated facility or a person designated by the owner or operator of the regulated facility who has authority to accept legal responsibility for the information provided in the facility’s registration, Baseline Emissions Intensity submission, Greenhouse Gas Emissions Report, or Compliance Report, is in a position to knowledgeably attest to the completeness and accuracy of the information submitted, and provides signed declaration of the Baseline Emissions Intensity submission, Greenhouse Gas Emissions Report, or other information required or requested by the Minister.

“Biomass” means plants or plant materials, animal waste or any product made of either of these, including wood and wood products, charcoal, and agricultural residues; biologically derived organic matter in municipal and industrial wastes, landfill gas, bio-alcohols, black liquor, sludge digestion gas and animal- or plant-derived oils.

“CO<sub>2</sub> captured” means the quantity of CO<sub>2</sub> captured at the regulated facility, the quantity of CO<sub>2</sub> may only be included in that description if it has been included in the total regulated emissions and has been permanently stored in a storage project that meets the following criteria:

- (a) the geological site into which the CO<sub>2</sub> is injected is
  - (i) a deep saline aquifer for the sole purpose of storage of CO<sub>2</sub>, or
  - (ii) a depleted oil reservoir for the purpose of enhanced oil recovery; and
- (b) the quantity of CO<sub>2</sub> stored for the purposes of the project is captured, transported and stored in accordance with the laws applicable to Canada or a province or applicable to the United States or one of its states.

“Cogeneration unit” means a fuel combustion device or system which simultaneously generates electricity and either heat or steam.

“Direct emissions” means the sum of all regulated emissions from regulated sources included in Table 1 from sources that are owned or controlled by the owner or operator of a regulated facility and are associated with the production of a product at a regulated facility.

“ECCC” means the federal ministry Environment and Climate Change Canada.

“Flaring emissions” means controlled releases of emissions from industrial activities, from the combustion of a gas or liquid stream produced at the facility, the purpose of which is not to produce useful heat or work, including emissions from:

- (a) waste petroleum incineration;
- (b) hazardous emission prevention systems (in pilot or active mode);
- (c) well testing;

- (d) natural gas gathering systems;
- (e) natural gas processing plant operations;
- (f) crude oil production;
- (g) pipeline operations;
- (h) petroleum refining;
- (i) chemical fertilizer production; and
- (j) steel production.

“Fugitive emissions” means emissions from:

- (a) venting, flaring or leakage of gases from fossil fuel production and processing;
- (b) iron and steel coke oven batteries; and
- (c) CO<sub>2</sub> capture, transport, injection and storage infrastructure.

“Gazette Notice” means the notice with respect to reporting of greenhouse gases (GHGs) for 2020 as published in the Canada Gazette.

“GHGRP” means Environment and Climate Change Canada’s Greenhouse Gas Reporting Program.

“Independent Reviewer” means a person who is qualified, in accordance with subsection 7.1(6), to review the work of the verification team prior to a statement of verification being created.

“Industrial process emissions” means emissions from an industrial process that involves a chemical or physical reaction other than combustion, and the purpose of which is not to produce heat or work to be used at a facility. For greater certainty, this does not include:

- (a) venting from hydrogen production associated with fossil fuel production and processing; and,
- (b) emissions from fuel combustion used to provide heat for an industrial process, whether they be internal or external to the industrial process equipment.

“Industrial product use emissions” means emissions from the use of a product, in an industrial process, that is not involved in a chemical or physical reaction and does not react in the process, including:

- (a) releases from the use of SF<sub>6</sub>, HFCs and PFCs as cover gases; and,
- (b) the use of HFCs and PFCs in foam blowing.

For greater certainty, this does not include:

- (a) releases of PFCs and HFCs used in refrigeration, air conditioning, semiconductor production, fire extinguishing, solvents, aerosols; and,
- (b) SF<sub>6</sub> in explosion protection, leak detection, electronic applications and fire extinguishing.

“IPCC” means the Intergovernmental Panel on Climate Change under the United Nations.

“ISO” means the International Organization for Standardization.

“ISO 14064-3” means the standard ISO 14064-3, published by the ISO and titled “Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements”, as amended from time to time.

“ISO 14065” means the standard ISO 14065, published by the ISO and titled “Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition”, as amended from time to time.

“Leakage emissions” means the uncontrolled release or leak of emissions from:

- (a) fossil fuel production, processing, transmission and distribution;
- (b) iron and steel coke oven batteries; and,
- (c) CO<sub>2</sub> capture, transport, injection and storage infrastructure.

“Level of assurance” means the depth of detail that a verification team designs into the verification plan to determine if there are any material errors, omissions, or misrepresentations.

“Materiality” means individual or the aggregate of actual errors, omissions, and misrepresentations that would misrepresent a regulated facility’s greenhouse gas emissions or production.

“On-site transportation emissions” means emissions from machinery used for the transport or movement of substances, materials, equipment or products that are used in the production process at a regulated facility, including emissions from vehicles without public road licences.

“Performance standard” means the amount of regulated emissions a regulated facility is permitted to emit when producing a unit of product in the given reduction period without the owner or operator incurring a compliance obligation.

“Production quantification methodology” means the procedure employed by the owner or operator of a regulated facility to quantify the level of production at the regulated facility, including detailing the stage of production at which the measurement takes place.

“Regulation” means the *Reduction of Greenhouse Gas Emissions Regulation – Climate Change Act*.

“Statement of verification” means the formal written declaration by the verification team that provides assurance on the statements in a Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report by the owner or operator of a regulated facility in accordance with the applicable verification criteria in subsection 7.1(10).

“Stationary fuel combustion emissions” means emissions from stationary fuel combustion sources, in which fuel is burned for the purpose of producing useful heat or work, including emissions from the combustion of waste fuels to produce useful heat or work.

“SWIM” means Environment and Climate Change Canada’s Single Window Information Manager and is the online system used by facilities to report their greenhouse gas emissions to New Brunswick and to Canada via ECCC’s GHGRP.

“Venting emissions” means controlled releases of a process or waste emission to the atmosphere, including emissions from:

- (a) hydrogen production associated with fossil fuel production and processing;
- (b) casing gas;
- (c) gases associated with a liquid or a solution gas;
- (d) treater, stabilizer or dehydrator off-gas;

- (e) blanket gases;
- (f) pneumatic devices which use natural gas as a driver;
- (g) compressor start-ups, pipelines and other blowdowns;
- (h) metering and regulation station control loops; and,
- (i) CO<sub>2</sub> emissions associated with carbon capture, transport, injection and storage

“Verification report” means a written report prepared by a verification team during the verification process with respect to a regulated facility.

“Verification team” means one or more qualified persons conducting a verification.

“Waste emissions” means emissions that result from waste disposal activities at a facility, including:

- (a) landfilling of solid waste;
- (b) flaring of landfill gas; and
- (c) waste incineration.

For greater certainty, this does not include releases from the combustion of waste fuels to produce useful heat or work.

“Wastewater emissions” mean emissions resulting from industrial wastewater and industrial wastewater treatment at a facility.



## 3. GHG Emissions Reporting

This section provides information to industrial facilities, having at least 10,000 tonnes but less than 50,000 tonnes of emissions per year and who are not a regulated facility, on how to report their annual emissions to the province of New Brunswick in accordance with the Act and Regulation.

Information on annual emissions reporting for regulated facilities is presented in section 7 of the Standard.

### 3.1 Reporting Criteria

- 3.1 (1) In accordance with section 7.21 of the Act, the owner or operator of an industrial facility that is not a regulated facility but that emits 10,000 tonnes or more of emissions per year shall submit a Greenhouse Gas Emissions Report to the Minister.
- 3.1 (2) The report referenced in subsection 3.1(1) shall be consistent in scope and methodology with the emissions reporting requirements established by ECCC in the Gazette Notice for a facility for the applicable reporting period, and any information required by the Minister.

### 3.2 Report Submission

- 3.2 (1) The owner or operator of the industrial facility shall submit the report on or before June 1 of the year following the reporting period.
- 3.2 (2) The owner or operator of the industrial facility shall submit the report to the Minister using ECCC's Single Window Information Management system (SWIM).
- 3.2 (3) The report shall include a Statement of Certification signed by an authorized signing officer, indicating that the information submitted is true, accurate and complete, and any other assurances that may be prescribed by ECCC in the Gazette Notice or by the Minister.
- 3.2 (4) The owner or operator of an industrial facility that reported its emissions in the previous reporting period shall inform the Minister if the industrial facility does not meet reporting criteria under subsection 3.1(1) in the current reporting period.
- 3.2 (5) If the owner or operator of the facility changes during the reporting period, the person responsible for the facility on December 31 of the reporting period is responsible for reporting emissions for the full reporting period.
- 3.2 (6) If a facility that meets the reporting criteria terminates operations during a reporting period, the person last responsible for the facility shall provide a report for the portion of the final year of operation, and include notice that its activities have ceased permanently.

### **3.3 Administrative Information to be Reported**

3.3 (1) A report prepared for purposes of this Standard shall be consistent with the reportable administrative information required by ECCC in the Gazette Notice for the reporting period, and any information required by the Minister.

## 4. NB OBPS Administration

In this section, guidance is given to owners and operators of industrial facilities on registration in the NB OBPS Program. Also, guidance is given to owners and operators of regulated facilities on removal from the NB OBPS Program and on requesting standby period and decommissioning status.

### 4.1 Opted-in Designation

In accordance with section 7.1 of the Act, the owner or operator of an industrial facility that emits 10,000 tonnes or more but less than 50,000 tonnes of emissions in any year after the commencement of the Act may apply to the Minister for the industrial facility to be designated as an opted-in facility.

The voluntary opt-in form can be found [\[here\]](#).

All opted-in submissions must be made to the Climate Change Secretariat by email at [NBOBPS-STFRNB@gnb.ca](mailto:NBOBPS-STFRNB@gnb.ca) using the email subject line “[Company Name] - [Facility Name] – Opted-in Submission”.

### 4.2 Registration

In accordance with subsection 5(1) of the Regulation, an owner or operator of a regulated facility shall apply for registration of the regulated facility.

The registration form for regulated facilities emitting a total quantity of regulated emissions of 50,000 tonnes or more of carbon dioxide equivalent of greenhouse gases can be found [\[here\]](#).

#### Opted-in Facility Registration

In accordance with paragraph 5(1) (b) of the Regulation, an owner or operator of an opted-in facility shall apply for registration of the regulated facility not later than 15 business days after the designation of the facility as an opted-in facility.

The registration form for opted-in facilities can be found [\[here\]](#).

All registration submissions must be made to the Climate Change Secretariat by email at [NBOBPS-STFRNB@gnb.ca](mailto:NBOBPS-STFRNB@gnb.ca) using the email subject line “[Company Name] - [Facility Name] – Registration Submission”.

### 4.3 Removal from Registration

As per section 6 of the Regulation, the owner or operator of a regulated facility may apply for the regulated facility to be removed from registration if the total quantity of regulated emissions is less than 50,000 tonnes in each of the three consecutive compliance periods before the date of the application.

The removal submission form can be found [\[here\]](#).

All removal submissions must be made to the Climate Change Secretariat by email at [NBOBPS-STFRNB@gnb.ca](mailto:NBOBPS-STFRNB@gnb.ca) using the email subject line “[Company Name] - [Facility Name] – [OBPS Registration Number] - Removal Submission”.

#### 4.4 Requesting Standby

In accordance with section 7 of the Regulation, the owner or operator of a regulated facility may apply to the Minister to have the regulated facility declared to be in standby period.

The standby period request form can be found [\[here\]](#).

All standby period requests must be made to the Climate Change Secretariat by email at [NBOBPS-STFRNB@gnb.ca](mailto:NBOBPS-STFRNB@gnb.ca) using the email subject line “[Company Name] - [Facility Name] – [OBPS Registration Number] – Standby Period Request”.

#### 4.5 Requesting Decommissioning Status

In accordance with section 8 of the Regulation, the owner or operator of a regulated facility may apply to the Minister to declare that the regulated facility has been decommissioned.

The decommission request form can be found [\[here\]](#).

All request for a regulated facility to be declared as having been decommissioned must be made to the Climate Change Secretariat by email at [NBOBPS-STFRNB@gnb.ca](mailto:NBOBPS-STFRNB@gnb.ca) using the email subject line “[Company Name] - [Facility Name] – [OBPS Registration Number] – Decommissioning Request”.

## 5. Quantification of Emissions and Production Data

This section provides detailed information on how regulated facilities must quantify their GHG emissions and production data for the purpose of submitting their Baseline Emissions Intensity submission and Greenhouse Gas Emissions Report.

### 5.1 Formatting

5.1 (1) When reporting data in a submission or report for a regulated facility, the owner or operator of the regulated facility shall report all compliance obligations rounded to the nearest whole number.

### 5.2 Measuring Device

5.2 (1) Any measuring device that is used to determine a quantity for the purposes of reporting data in a submission or report for a regulated facility must be

- (a) installed, operated, maintained and calibrated in accordance with the manufacturer's specifications or any applicable generally recognized national or international industry standard; and
- (b) maintained to be accurate within  $\pm 5\%$ .

5.2 (2) If it is not possible to directly measure production using a measuring device, it may be quantified using engineering estimates or mass balance.

### 5.3 Quantification of GHG Emissions

5.3 (1) The owner or operator of a regulated facility shall convert all quantified emissions included in a submission or report to tonnes of CO<sub>2</sub>e.

5.3 (2) The owner or operator of a regulated facility shall ensure that all regulated emissions from a regulated facility are included and accounted for in all submissions and reports.

5.3 (3) All categories in Table 1 are considered to be regulated sources of emissions.

5.3 (4) The owner or operator of a regulated facility shall include all emissions associated with the generation of on-site electricity for a regulated facility in that regulated facility's direct emissions.

5.3 (5) The owner or operator of a regulated facility shall determine the total regulated emissions of each regulated source in Table 1 for each product produced at the regulated facility for the compliance period by following the methodology and quantification requirements established by ECCC in the Gazette Notice.

5.3 (6) The owner or operator of a regulated facility shall determine the direct emissions for each product produced at the regulated facility in accordance with the following formula:

$$DE_{a,i} = \sum_y ES_{y,a,i}$$

where:

- $DE_{a_i}$  is the direct emissions for the regulated facility for the purpose of producing product  $a$  in year  $i$ , expressed in tonnes of CO<sub>2</sub>e;
- $ES_{y_a_i}$  is the total regulated emissions for regulated sources  $y$  for product  $a$  in baseline year  $i$ , expressed in tonnes of CO<sub>2</sub>e, determined from subsection 5.2(5);
- $a$  is the product produced at the regulated facility;
- $i$  is the baseline year for the purpose of calculating baseline emissions or the compliance period for the purpose of calculating total regulated emissions; and
- $y$  is a regulated source owned or controlled by the owner or operator of the regulated facility and included in Table 1.

5.3 (7) The owner or operator of a regulated facility shall include industrial process emissions and emissions associated with electricity generated using cogeneration in a regulated facility's Baseline Emissions Intensity submission and Greenhouse Gas Emissions Report, but will be provided 100 percent allocation for the purpose of determining a regulated facility's performance standard for a product.

5.3 (8) The owner or operator of a regulated facility shall include all on-site transportation emissions for a regulated facility in the regulated facility's direct emissions. The owner or operator of a regulated facility may exclude those on-site transportation emissions for which the tax on carbon emitting products was paid pursuant to the *Gasoline and Motive Fuel Tax Act*.

## 5.4 Quantification of Production

5.4 (1) The owner or operator of a regulated facility shall quantify the production at a regulated facility for a baseline or compliance period, using the quantification method selected, according to section 6.4 of the Standard, within a margin of error of  $\pm 5$  percent.

## 5.5 Missing Data

5.5 (1) If, for any reason beyond the control of the owner or operator of a regulated facility, the data required to quantify the emissions or production of a product at the regulated facility is missing for a compliance period or baseline year, the owner or operator of the regulated facility shall calculate replacement data using:

- (a) quantification methods established by ECCC in the Gazette Notice, if those methods are applicable; or,
- (b) the most recent IPCC Guidelines for National Greenhouse Gas Inventories.

Table 1. Regulated Sources of Emissions

Greenhouse Gas	Regulated Sources of Emissions								
	Stationary Fuel Combustion Emissions	Industrial Process Emissions	Industrial Product Use Emissions	Fugitive			On-site Transportation Emissions	Waste Emissions	Waste-water Emissions
				Venting Emissions	Flaring Emissions	Leakage Emissions			
Carbon dioxide <sup>1</sup>	•	•	N/A	•	•	•	•	•	•
Methane	•	•	N/A	•	•	•	•	•	•
Nitrous oxide	•	•	N/A	•	•	•	•	•	•
Sulphur hexafluoride	N/A	•	•	N/A	N/A	N/A	N/A	N/A	N/A
Hydrofluorocarbons	N/A	by species	by species	N/A	N/A	N/A	N/A	N/A	N/A
Perfluorocarbons	N/A	by species	by species	N/A	N/A	N/A	N/A	N/A	N/A

<sup>1</sup> Excluding CO<sub>2</sub> emissions from biomass combustion, decomposition and fermentation.

N/A: Not Applicable

## 6. Baseline Emissions Intensity Submission

In this section, guidance is provided on the methodology for the owner or operator of a regulated facilities to establish and submit a Baseline Emissions Intensity submission for the regulated facility.

A baseline emissions intensity shall be established for each product at a regulated facility. This baseline emissions intensity should be representative of operating conditions and will be used to determine the emissions limit of the regulated facility. To this end, each owner or operator of the regulated facility shall select the representative baseline years and determine:

- (a) baseline emissions;
- (b) baseline emissions level;
- (c) baseline production level; and,
- (d) baseline emissions intensity.

Flexibility is provided for selection of the product(s) that accurately represent the operations at the regulated facility. However, the selected product(s) must account for all regulated emissions at the facility.

Finally, this section does not apply to regulated facilities involved exclusively in electricity generation.

### 6.1 Baseline Years

#### Existing Facility

6.1 (1) The owner or operator of a regulated facility shall select the baseline years for a regulated facility by using the following criteria:

- (a) the baseline years must be three consecutive calendar years; and
- (b) the baseline years must be chosen from the five calendar years preceding the first compliance period for the regulated facility.

Regulated facilities shall select the baseline years that best reflect representative operating conditions at the facility prior to the first compliance period.

Regulated facilities that were in standby period for any part of this five-year period are encouraged to contact the Climate Change Secretariat to discuss establishing alternative baseline years.

6.1 (2) If the baseline year criteria established in subsection 6.1(1) does not reflect the representative operating conditions at the regulated facility, or the regulated facility was in standby during the period mentioned in subsection 6.1 (1), the owner or operator of the regulated facility may apply to establish baseline years for the facility on the basis of other considerations respecting the special circumstances of the facility.



### New Facility

Under the Regulation, new facilities are granted exemption until the third year after the year the facility commences production and has at least 50,000 tonnes of regulated emissions. This allows enough time for sufficient data to be collected that can be used to establish a baseline emissions intensity.

6.1 (3) The baseline years for a new facility shall be established in the following manner:

- (a) for the first compliance period, the new facility shall use the previous two calendar years;
- (b) for the second compliance period, the new facility shall use the previous three calendar years; and,
- (c) the same three compliance periods as in paragraph 6.1(1)(b) will be used for all subsequent compliance periods for the new facility unless the baseline emissions intensity is re-established according to the Regulations and this Standard.

## 6.2 Baseline Emissions

Baseline emissions are all regulated emissions associated with the production of a product at a regulated facility in a single baseline year.

6.2 (1) The owner or operator of a regulated facility shall determine the baseline emissions for a product at a regulated facility in accordance with following formula:

$$BE_{a_i} = DE_{a_i}$$

where:

- $BE_{a_i}$  is the baseline emissions for the purpose of producing product  $a$  in baseline year  $i$ , expressed in tonnes of CO<sub>2</sub>e;
- $DE_{a_i}$  is the direct emissions for the regulated facility for the purpose of producing product  $a$  in baseline year  $i$ , expressed in tonnes of CO<sub>2</sub>e;
- $a$  is the product produced at the regulated facility; and,
- $i$  is a baseline year.

## 6.3 Baseline Emissions Level

The baseline emissions level represents the averaging of baseline emissions over the selected baseline years. The results will be used later in conjunction with the baseline production level (section 6.4) to determine the baseline emissions intensity associated with the production of a product (section 6.5).

6.3 (1) The owner or operator of a regulated facility shall determine the baseline emissions level for a product at a regulated facility by the following formula:

$$BEL_a = \frac{1}{n} \sum_{i=1}^n BE_{a_i}$$

where:

- $BEL_a$  is the baseline emissions level for a regulated facility for the purpose of producing product  $a$  during the baseline years, expressed in tonnes of CO<sub>2</sub>e;
- $BE_{a_i}$  is the baseline emissions for the purpose of producing product  $a$  in the baseline year  $i$ , expressed in tonnes of CO<sub>2</sub>e;
- $a$  is the product produced at the regulated facility;
- $i$  is a baseline year; and,
- $n$  is the number of baseline years.

## 6.4 Baseline Production Level

The baseline production level represents the averaging of the amount of product produced over the chosen baseline years. The results will be used later in conjunction with the baseline emissions level (section 6.3) to determine the baseline emissions intensity associated with the production of a product (section 6.5).

- 6.4 (1) As part of the Baseline Emissions Intensity submission for a regulated facility, the owner or operator of a regulated facility shall propose the product(s) and corresponding production quantification methodologies that account for all regulated emissions released at the regulated facility and provides a transparent and accurate representation of the activities at the regulated facility.
- 6.4 (2) For regulated facilities in the petroleum refining sector, the direct-only Canadian complexity-weighted barrel (CAN-CWB) methodology is an acceptable quantification methodology representing production outputs from refineries.
- 6.4 (3) In the method referred to in subsection 6.4 (2), the value of “Deemed Indirect CO<sub>2</sub>e Emissions from imported electricity” is calculated using 0.420 tonnes of CO<sub>2</sub>e per MWh of electricity bought.
- 6.4 (4) The baseline production level represents the averaging of the amount of product produced over the chosen baseline years and is determined by the following formula:

$$BPL_a = \frac{1}{n} \sum_{i=1}^n P_{a_i}$$

where:

- $BPL_a$  is the baseline production level for product  $a$  in the baseline years;
- $P_{a_i}$  is the amount of product  $a$  produced at the regulated facility in the baseline year  $i$ ;
- $a$  is the product produced at the regulated facility;
- $i$  is a baseline year; and,
- $n$  is the number of baseline years.

## 6.5 Baseline Emissions Intensity

The baseline emissions intensity is the result obtained by dividing the baseline emissions level for a product by the baseline production level for that product. It is this baseline emissions intensity that will be used to determine the emissions limit for a regulated facility in a compliance period.

6.5 (1) The owner or operator of a regulated facility shall determine the baseline emissions intensity for a product at a regulated facility in accordance with the following formula:

$$BEI_a = \frac{BEL_a}{BPL_a}$$

where:

- $BEI_a$  is the baseline emissions intensity for product  $a$ ;
- $BEL_a$  is the baseline emissions level for product  $a$ ;
- $BPL_a$  is the baseline production level for product  $a$ ; and,
- $a$  is the product produced at the regulated facility.

A numerical example on how the baseline emissions intensity is calculated is presented in Appendix B.

## 6.6 Submitting the Baseline Emissions Intensity Submission

A Baseline Emissions Intensity submission is required for each regulated facility. When completing the submission, all numerical entries in the Baseline Emissions Intensity submission form must be entered to four decimal digits. This is to prevent rounding errors in the calculations.

All Baseline Emissions Intensity submissions must be made to the Climate Change Secretariat by email at [NBOBPS-STFRNB@gnb.ca](mailto:NBOBPS-STFRNB@gnb.ca) using the email subject line “[**Company Name**] - [**Facility Name**] – [**OBPS Registration Number**] – **Baseline Emissions Intensity Submission**”.

All information provided in the Baseline Emissions Intensity submission is deemed to be public information. The owner or operator of the regulated facility may submit a written request for confidentiality to keep any information provided in the Baseline Emissions Intensity submission confidential. This written request should be submitted as part of the Baseline Emissions Intensity submission.

6.6 (1) When preparing a Baseline Emissions Intensity submission for a regulated facility, the owner or operator of the regulated facility shall:

- (a) complete any required forms;
- (b) provide the required emissions and production information, including:
  - (i) the chosen baseline years from which data will be used, subject to section 6.1;
  - (ii) a simplified process flow diagram, in PDF format, that provides an overview of the processes that produce all quantified sources of regulated emissions at the regulated facility;

- (iii) a list of all major sources of regulated emissions included in the regulated facility's baseline emissions;
  - (iv) all regulated emissions, reported by regulated source and by fuel type, included in the baseline emissions for the regulated facility for each baseline year;
  - (v) the type, quantities and energy content per unit of fuel (High Heating Value) of each fuel, including biomass, consumed within each regulated source, if applicable.
  - (vi) total units of production for each proposed product produced at the regulated facility for each baseline year;
  - (vii) the baseline emissions level, baseline production level, and baseline emissions intensity for each product, calculated in accordance with sections 6.2 to 6.5 of the Standard;
  - (viii) the references for the quantification methods used to calculate regulated emissions for the regulated facility; and,
  - (ix) the references for the production quantification methodology used.
- (c) in the event that a regulated facility has an on-site cogeneration unit, provide a simplified process flow diagram(s), in PDF format, of the cogeneration unit layout and the following information for each baseline year:
- (i) the type of fuel used by the cogeneration unit;
  - (ii) the total amount of each fuel used by the cogeneration unit;
  - (iii) the energy content (High Heating Value) of each fuel used by the cogeneration unit;
  - (iv) mass or volume of fuel used to produce heat by the cogeneration unit;
  - (v) mass or volume of fuel used to produce electricity by the cogeneration unit;
  - (vi) the total emissions from cogeneration;
  - (vii) the heat production emissions from cogeneration;
  - (viii) the electricity production emissions from cogeneration;
  - (ix) the total net heat produced by cogeneration;
  - (x) the total electricity production from cogeneration; and,
  - (xi) the operating time of the cogeneration unit.
- (d) in the event that a regulated facility has an on-site cogeneration unit using biomass, determine if the owner or operator of the regulated facility applies for the Biomass Adjustment Factor, in accordance with section 7.3 of the Standard.
- (e) In the event that a regulated facility is primarily engaged in the manufacturing of lime and is assigned the North American Industry Classification System (NAICS) code 327410, determine if the owner or operator of the regulated facility applies for the Risk Adjustment Factor, in accordance with section 7.3 of the Standard.
- (f) provide a signed declaration from an authorized signing officer for the regulated facility attesting to the accuracy and completeness of the Baseline Emissions Intensity submission; and
- (g) include a completed verification report and a signed statement of verification from a qualified person who performed a verification on the regulated facility.
- 6.6 (2) Prior to submitting a Baseline Emissions Intensity submission, the owner or operator of the regulated facility shall ensure that all information contained within the Baseline Emissions Intensity submission is verified by a qualified person in accordance with section 9 of the Standard.

- 6.6 (3) The owner or operator of a regulated facility shall submit the completed, verified Baseline Emissions Intensity submission by September 30<sup>th</sup> of the first compliance period for the regulated facility.
- 6.6 (4) The owner or operator of a new regulated facility shall submit the completed, verified Baseline Emissions Intensity submission by September 30<sup>th</sup> of the first compliance period for the regulated facility and submit a second verified Baseline Emissions Intensity submission by September 30<sup>th</sup> of the second compliance period for the regulated facility.
- 6.6 (5) After a submitted Baseline Emissions Intensity submission for a regulated facility has been reviewed for completeness, the owner or operator of the regulated facility will be provided a written response that:
- (a) approves the information provided in the Baseline Emissions Intensity submission for the regulated facility; or,
  - (b) indicates the Baseline Emissions Intensity submission for the regulated facility is incomplete or has errors, details of the problem(s) or issue(s), and any action required by the owner or operator of a regulated facility, including:
    - (i) providing additional information that may be requested or required;
    - (ii) any corrective action that may be required; and/or,
    - (iii) if applicable, having the Baseline Emissions Intensity submission re-verified.
- 6.6 (6) Upon receipt of a written response with respect to paragraph 6.6(5)(b), the owner or operator of the regulated facility shall fulfil any actions required and resubmit the required information.
- 6.6 (7) If the owner or operator of a regulated facility is required to re-verify a Baseline Emissions Intensity submission for the regulated facility in accordance with subparagraph 6.6(5)(b)(iii), the owner or operator of the regulated facility shall submit:
- (a) a new verification report;
  - (b) a new statement of verification; and,
  - (c) any additional information, including emissions and production data, that was not included in the original Baseline Emissions Intensity submission.
- 6.6 (8) Upon resubmission of the required information with respect to paragraph 6.6(5)(b), the information will be reviewed and the owner or operator of a regulated facility will be provided a written response that provides a statement in accordance with subsection 6.6(5).

## **6.7 Adjusting of Baseline Information**

The circumstances in which the baseline emissions intensity for the regulated facility may require adjustment are outlined under subsections 14(5) and (6) of the Regulation.

In the scenario where paragraph 14(5)(d) of the Regulation occurs, the baseline emissions intensity may require adjustment unless the regulated facility can demonstrate to the satisfaction of the Minister that the reduction in emissions intensity of 10% or more was not due to inaccuracies or errors in the established baseline emissions intensity for the regulated facility.

If the owner or operator of the regulated facility is required under section 14 of the Regulation to adjust the baseline emission intensity at the regulated facility or if the owner or operator of the regulated facility wishes to adjust the baseline emissions intensity at the regulated facility on its own accord in the circumstances outlined under section 15 of the Regulation, the owner or operator shall complete and submit an application to the Minister in accordance with this section.

6.7 (1) If the owner or operator of a regulated facility applies or is required to adjust the baseline emissions intensity for the regulated facility, the owner or operator shall verify any information required to adjust the baseline emissions intensity that has been changed or has not been verified in a previous Baseline Emissions Intensity submission.

6.7 (2) In an application to adjust the baseline emissions intensity for the regulated facility, the owner or operator shall provide the information necessary to properly review the current and proposed baseline emissions intensity, including:

- (a) a statement by the owner or operator of a regulated facility as to why the application to adjust the baseline emissions intensity for the regulated facility is being made;
- (b) the proposed new baseline emissions intensity; and,
- (c) evidence that demonstrates the proposed baseline emissions intensity is representative of the operating conditions at the regulated facility.

6.7 (3) Upon submission of an application by the owner or operator of the regulated facility, the application will be reviewed and the owner or operator of the regulated facility will be provided with a written response that indicates:

- (a) the proposed baseline emissions intensity has been accepted;
- (b) the application was incomplete or contained omissions or errors, with corrective actions and information that is required to be submitted; or,
- (c) the application has been denied, with reasons for the denial.

6.7 (4) Upon resubmission by the owner or operator of the regulated facility of required information, the information will be reviewed, and the owner or operator of the regulated facility will be provided with:

- (a) a written response in accordance with subsection 6.7(3); or,
- (b) a written response that establishes the adjusted baseline emissions intensity for the regulated facility.

## 7. Greenhouse Gas Emissions Report

In accordance with section 23 of the Regulation, the owner or operator of a regulated facility is required to prepare and submit a Greenhouse Gas Emissions Report to the Minister for each compliance period in accordance with the schedule established in section 7.7 of the Standard. This section provides guidance on preparing and submitting a Greenhouse Gas Emissions Report.

### 7.1 Report Contents

7.1 (1) A Greenhouse Gas Emissions Report prepared for purposes of this Standard shall be consistent in scope and methodology with the emissions reporting requirements established by ECCC in the Gazette Notice for a regulated facility for the compliance period, and any information required by the Minister.

7.1 (2) When preparing a Greenhouse Gas Emissions Report for a regulated facility, the owner or operator of the regulated facility shall:

- (a) complete any required forms;
- (b) report all information consistent with both the reportable administrative information and the emissions reporting requirements established by ECCC in the Gazette Notice for a regulated facility for the compliance period, and any information required by the Minister;
- (c) in accordance with section 5.2 of the Standard, quantify regulated emissions by following the methodology and quantification requirements with the emissions reporting requirements established by ECCC in the Gazette Notice for the compliance period;
- (d) report the required emissions and production information, including:
  - (i) a list of all major sources of emissions included in the regulated facility's total regulated emissions;
  - (ii) all emissions, reported by regulated source category and by fuel type, included in the total regulated emissions for the regulated facility in the compliance period;
  - (iii) the type, quantities and energy content per unit of fuel (High Heating Value) of each fuel, including biomass, consumed within each regulated source, if applicable.
  - (iv) total units of product for each product produced at the regulated facility;
  - (v) the total CO<sub>2</sub> captured at the regulated facility;
  - (vi) the total regulated emissions and emissions limit for the regulated facility in the compliance period in question, calculated using equations in sections 7.5 and 7.6 of the Standard;
  - (vii) a confirmation that the total quantity of regulated emissions by the regulated facility is below, meets or exceeds the emissions limit for the regulated facility for the compliance period in question;
  - (viii) the references for the quantification methods used to calculate each source of emissions for the regulated facility; and,
  - (ix) references to the production quantification methodology used;
- (e) in the event that a regulated facility has an on-site cogeneration unit, report the following information:

- (i) the type of fuel used by the cogeneration unit;
- (ii) the total amount of each fuel used by the cogeneration unit;
- (iii) the energy content (High Heating Value) of each fuel used by the cogeneration unit;
- (iv) mass or volume of fuel used to produce heat by the cogeneration unit;
- (v) mass or volume of fuel used to produce electricity by the cogeneration unit;
- (vi) the total emissions from cogeneration;
- (vii) the heat production emissions from cogeneration;
- (viii) the electricity production emissions from cogeneration;
- (ix) the total net heat produced by cogeneration;
- (x) the total electricity production from cogeneration; and,
- (xi) the operating time of the cogeneration unit.

Note: This information will serve to evaluate if the regulated facility has reached (or maintained) the threshold for the Biomass Adjustment Factor (more information is presented in section 7.3 of the Standard).

- (f) provide a signed declaration from an authorized signing officer for the regulated facility attesting to the accuracy and completeness of the Greenhouse Gas Emissions Report; and
- (g) include a completed verification report and a signed statement of verification from a qualified person who performed a verification on the regulated facility in accordance with section 9.

## 7.2 Reduction Period

The reduction period is used in conjunction with other parameters to determine the regulated facility's performance standard(s) and emissions limit during a given compliance period.

- 7.2 (1) For the purposes of section 12 and Tables 1 and 2 of the Regulation, the owner or operator of a regulated facility shall establish a reduction period for each product commercially produced at the regulated facility every compliance period according to the following:
- (a) the first reduction period is applicable for every product produced at a regulated facility during the regulated facility's first compliance period;
  - (b) for every subsequent compliance period, the subsequent reduction period is applicable for every product produced at the regulated facility; and,
  - (c) if additional reduction periods are not available, the final reduction period applies for every product produced at the regulated facility.
- 7.2 (2) When a regulated facility has the baseline emission intensity for a product re-established, the regulated facility will maintain the same reduction period for that product.
- 7.2 (3) If a regulated facility is deemed to be exempt from accruing compliance obligations for the purpose of standby for at least 6 months of a compliance period, the reduction period for each product commercially produced at the regulated facility shall not advance to the subsequent reduction period in the following compliance period.



### 7.3 Biomass Adjustment Factor and Risk Adjustment Factor

The province of New Brunswick has developed a Biomass Adjustment Factor to recognize regulated facilities who have incorporated green technologies within their facilities and as a result, have significantly reduced their GHG emissions before the commencement of the NB OBPS.

Further, to address high carbon leakage and competitiveness risks at regulated facilities, a Risk Adjustment Factor has been developed based on the results of New Brunswick's Competitiveness and Carbon Leakage Risk Assessment.

Guidance on determining both the Biomass Adjustment Factor and Risk Adjustment Factors is presented below.

7.3 (1) For the purposes of calculating the performance standard for a regulated facility in a reduction period, the owner or operator of a regulated facility shall determine the value of the Biomass Adjustment Factor in a reduction period according to the following:

- (a) for regulated facilities having an on-site cogeneration unit, for which:
  - (i) historically, based on the approved Baseline Emissions Intensity submission and corresponding baseline years, at least 91% of the total energy from the fuels used by the facility for the generation of steam, excluding its electricity consumption, is from biomass, based on each fuel's corresponding energy content per unit of fuel (High Heating Value); and,
  - (ii) in reduction period  $k$ , at least 91% of the total energy from the fuels used by the facility for the generation of steam, excluding its electricity consumption, is from biomass, based on each fuel's corresponding energy content per unit of fuel (High Heating Value).

the Biomass Adjustment Factor in a reduction period is:

$$BF_k = 1.045$$

where:

$BF_k$  is the Biomass Adjustment Factor in reduction period  $k$ ; and,

$k$  is the current reduction period for the regulated facility.

- (b) for all other regulated facilities, the Biomass Adjustment Factor in a reduction period is:

$$BF_k = 1.0$$

where:

$BF_k$  is the Biomass Adjustment Factor in reduction period  $k$ ; and,

$k$  is the current reduction period for the regulated facility.

7.3 (2) For the purposes of calculating the performance standard for a regulated facility in a reduction period, the owner or operator of a regulated facility shall determine the value of the Risk Adjustment Factor in a reduction period according to the following:

- (a) for regulated facilities who are primarily engaged in lime manufacturing, for which their primary NAICS Code is 327410 (lime manufacturing), the Risk Adjustment Factor in a reduction period is:

$$RF_k = 1.045$$

where:

$RF_k$  is the Risk Adjustment Factor in reduction period  $k$ ; and,

$k$  is the current reduction period for the regulated facility.

(b) for all other regulated facilities, the Risk Adjustment Factor in a reduction period is:

$$RF_k = 1.0$$

where:

$RF_k$  is the Risk Adjustment Factor in reduction period  $k$ ; and,

$k$  is the current reduction period for the regulated facility.

## 7.4 Performance Standards

In this section, guidance is given on how to determine a regulated facility's performance standard(s). A performance standard represents the amount of regulated emissions a regulated facility is permitted to emit when producing a unit of product in the given reduction period without the owner or operator incurring a compliance obligation. A regulated facility may have more than one performance standard if it produces multiple products in accordance with section 6.4 of the Standard.

7.4 (1) The owner or operator of a regulated facility shall determine the performance standard for each product produced at the regulated facility for each reduction period.

7.4 (2) The owner or operator of a regulated facility shall determine the performance standard for each product produced at the regulated facility in a given reduction period by:

$$PS_{a,k} = \left[ \left( BEI_a - \frac{\sum_{i=1}^n (IP_{a,i} + EC_{a,i})}{\sum_{i=1}^n P_{a,i}} \right) \times PSRF_k + \frac{IP_{a,k} + EC_{a,k}}{P_{a,k}} \right] \times BF_k \times RF_k$$

where:

$PS_{a,k}$  is the performance standard for product  $a$  in reduction period  $k$ , expressed in tonnes of CO<sub>2</sub>e per unit of product  $a$ ;

$BEI_a$  is the baseline emissions intensity for product  $a$ ;

$IP_{a,i}$  is the industrial process emissions associated with the production of product  $a$  during the baseline year  $i$ , if applicable, expressed in tonnes of CO<sub>2</sub>e;

$EC_{a,i}$  is the portion of stationary fuel combustion emissions associated with electricity generated on-site at the regulated facility using cogeneration for the purposes of producing product  $a$  during the baseline year  $i$ , if applicable, expressed in tonnes of CO<sub>2</sub>e;

$P_{a,i}$  is the level of production of product  $a$  during baseline period  $i$ ;

- $PSRF_k$  is the performance standard reduction factor for product  $a$  in reduction period  $k$  as determined by Table 1 of the Regulation.
- $IP_{a,k}$  is the industrial process emissions associated with the production of product  $a$  during the reduction period  $k$ , if applicable, expressed in tonnes of CO<sub>2</sub>e;
- $EC_{a,k}$  is the portion of stationary fuel combustion emissions associated with electricity generated on-site at the regulated facility using cogeneration for the purposes of producing product  $a$  during the reduction period  $k$ , if applicable, expressed in tonnes of CO<sub>2</sub>e;
- $P_{a,k}$  is the level of production of product  $a$  during reduction period  $k$ ;
- $BF_k$  is the Biomass Adjustment Factor in reduction period  $k$ ;
- $RF_k$  is the Risk Adjustment Factor in reduction period  $k$ ;
- $a$  is the product in reduction period  $k$  which is produced at the regulated facility;
- $k$  is the current reduction period for the regulated facility;
- $i$  is a baseline year; and,
- $n$  is the number of baseline years.

7.4 (3) The owner or operator of a regulated facility involved exclusively in electricity generation from fossil fuels shall determine the performance standard for the electricity generated by each fossil fuel type in a given reduction period at the regulated facility in accordance with 13(b) of the Regulation.

## 7.5 Total Regulated Emissions

The total regulation emissions for the regulated facility are used in conjunction with its emission limit (section 7.6) to determine the regulated facility's compliance obligations in accordance with section 17 of the Regulation.

7.5 (1) The owner or operator of a regulated facility shall determine the total regulated emissions for the regulated facility during a compliance period in accordance with the following formula:

$$TE_i = \sum_{a=1}^m (DE_{a,i} - CE_{a,i})$$

where:

- $TE_i$  is the total regulated emissions for the regulated facility in compliance period  $i$ , expressed in tonnes of CO<sub>2</sub>e;
- $DE_{a,i}$  are the direct emissions released by the regulated facility for the purpose of producing product  $a$  in the compliance period  $i$ , expressed in tonnes of CO<sub>2</sub>e;

- $CE_{a_i}$  is the quantity of CO<sub>2</sub> captured during the production of product  $a$  at the regulated facility that is stored during the compliance period in a storage project, determined using the quantification method described in section 1 of the GHGRP, expressed in tonnes of CO<sub>2</sub>e;
- $a$  is a product produced at the regulated facility;
- $i$  is the compliance period; and,
- $m$  is the number of products produced at the regulated facility during compliance period  $i$ .

## 7.6 Emissions Limit

The emissions limit represents the amount of regulated emissions a regulated facility is permitted to emit without the owner or operator incurring a compliance obligation. The emissions limit is used in conjunction with the regulated facility's total regulated emissions (section 7.5) to determine its compliance obligations in accordance with section 17 of the Regulation.

7.6 (1) The owner or operator of a regulated facility shall determine the emissions limit for the regulated facility for a given compliance period by:

$$EL_i = \sum_{a=1}^m (PS_{a_k} \times P_{a_i})$$

where:

- $EL_i$  is the emissions limit for the regulated facility during the compliance period  $i$ , expressed in tonnes of CO<sub>2</sub>e;
- $PS_{a_k}$  is the performance standard for product  $a$  during reduction period  $k$ , expressed in tonnes of CO<sub>2</sub>e per unit of product  $a$ ;
- $P_{a_i}$  is the amount of product  $a$  produced at the regulated facility during compliance period  $i$ ;
- $a$  is a product in reduction period  $k$  which is produced at the regulated facility during compliance period  $i$ ;
- $i$  is the compliance period;
- $k$  is the reduction period for product  $a$ ; and,
- $m$  is the number of products produced at the regulated facility during compliance period  $i$ .

## 7.7 Submission of Greenhouse Gas Emissions Report

- 7.7 (1) Prior to submitting a Greenhouse Gas Emissions Report, the owner or operator of a regulated facility shall ensure that all information contained within the report is verified by a qualified person in accordance with section 9 of the Standard.
- 7.7 (2) The owner or operator of a regulated facility shall submit the completed, verified Greenhouse Gas Emissions Report for the regulated facility by June 1<sup>st</sup> following the schedule established in Appendix A.
- 7.7 (3) If a regulated facility is deemed to be in standby for part of a compliance period, the owner or operator of the regulated facility shall include in the Greenhouse Gas Emissions Report for the compliance period evidence that demonstrates the regulated facility was in standby during the compliance period.
- 7.7 (4) After a submitted Greenhouse Gas Emissions Report for a regulated facility has been reviewed for completeness, the owner or operator of the regulated facility will be provided with:
- (a) a written response approving the information provided in the Greenhouse Gas Emissions Report and confirming any compliance obligation owed by the owner or operator of the regulated facility; or,
  - (b) a written response indicating the Greenhouse Gas Emissions Report is incomplete or has errors, details of the problem(s) or issue(s), and/or any action required by the owner or operator of the regulated facility, including:
    - (i) providing additional information that may be requested or required;
    - (ii) any corrective action that may be required; and/or,
    - (iii) if applicable, having the emissions return re-verified.
- 7.7 (5) Upon receipt of a written response in respect to subparagraph 7.7.4(b), the owner or operator of the regulated facility shall fulfil any actions required and resubmit the required information within the time specified by the Minister.
- 7.7 (6) If the owner or operator of a regulated facility is required to re-verify a Greenhouse Gas Emissions Report in accordance with 7.7.4(b)(iii), the owner or operator of the regulated facility shall submit:
- (a) a new verification report;
  - (b) a new statement of verification in accordance with section 9; and,
  - (c) any new information, including emissions and production data, that was not included in the original Baseline Emissions Intensity submission.
- 7.7 (7) Upon resubmission of required information with respect to subparagraph 7.7.4(b), the information will be reviewed and the owner or operator of the regulated facility will be provided a written response in accordance with subsection 7.7(4).

## 8. Compliance Report

This section provides information to regulated facilities on the preparation and submission of a Compliance Report. Additional information on compliance is presented in the Regulation.

8.1 (1) If it is identified in a Greenhouse Gas Emissions Report for a regulated facility that the owner or operator of the regulated facility has a compliance obligation, the owner or operator of the regulated facility shall submit a Compliance Report by December 15<sup>th</sup> following the schedule established in Table A1 of Appendix A.

8.1 (2) The Compliance Report must include the following information:

- (a) any required forms; and
- (b) a description of the compliance options demonstrating how the compliance obligation has been met, including:
  - (i) all fund credits, including serial number, purchased by the regulated facility and submitted for compliance;
  - (ii) all performance credits, including serial number, awarded by the Minister, if any, and submitted for compliance; and,
  - (iii) all offset credits, including serial number, granted or recognized by the Minister and submitted for compliance.

## 9. Verification

As all Baseline Emissions Intensity submissions and all Greenhouse Gas Emissions Reports must be verified by a verification team, this section provides detailed information and guidance on the verification requirements.

Similarly, Appendix D presents a guide for the preparation of a verification report and includes information and guidance on its contents.

### 9.1 Verification Requirements

- 9.1 (1) If there is any conflict between this Standard and the ISO 14064-3 or ISO 14065 standards, this Standard prevails.
- 9.1 (2) For the purpose of performing verification of Baseline Emissions Intensity submissions or Greenhouse Gas Emissions Reports under the Regulations, a qualified person is a member of a verification team.
- 9.1 (3) The owner or operator of a regulated facility shall ensure that a verification team performing verification on the regulated facility meets the following criteria:
- (a) all members of a verification team are employed by an accredited verification body; and,
  - (b) each member of the verification team meets the requirements for team members as outlined in ISO 14065.
- 9.1 (4) For the purpose of verifying a Baseline Emissions Intensity submission or a Greenhouse Gas Emissions Report for a regulated facility in accordance with the Regulation and this Standard, the owner or operator of a regulated facility shall provide the verification team access to:
- (a) the regulated facility;
  - (b) any personnel;
  - (c) records; and,
  - (d) other information or resources as requested by the verification team.
- 9.1 (5) The owner or operator of a regulated facility shall ensure that a verification report is prepared for the regulated facility in accordance with the ISO 14064-3 standard and include, at a minimum, the following:
- (a) a completed statement of verification;
  - (b) a list of:
    - (i) unresolved qualitative verification findings; and
    - (ii) unresolved quantitative verification findings of errors, omissions or misstatements;
  - (c) an assessment of the impact of:
    - (i) unresolved qualitative verification findings; and
    - (ii) unresolved quantitative verification findings of errors, omissions or misstatements on the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report that is being verified;

- (d) confirmation that the quantification methods used by the owner or operator in the Greenhouse Gas Emissions Report for the regulated facility are consistent with the methods used in the Baseline Emissions Intensity submission for the regulated facility;
- (e) confirmation that the quantification methods used by the owner or operator in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report are consistent with the emissions reporting requirements established by ECCC in the Gazette Notice, if those methods are applicable, or the most recent IPCC Guidelines for National Greenhouse Gas Inventories.
- (f) the name and contact information of all members of the verification team, including any external experts consulted in the process of conducting the verification for the regulated facility; and
- (g) the name and contact information of the independent reviewer.

9.1 (6) The owner or operator of a regulated facility shall ensure that before a positive, qualified positive or adverse verification statement is prepared, the determination that forms the basis of the statement must be reviewed by an independent reviewer who meets the following qualifications:

- (a) the person is employed by an accredited verification body;
- (b) the person is not a member of the verification team carrying out the verification with respect to the regulated facility; and,
- (c) the person has not been a member of a verification team that has performed verification with respect to the regulated facility for at least three compliance periods.

9.1 (7) The owner or operator of a regulated facility shall ensure that the verification of emissions and production data associated with the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report for the regulated facility is completed to a reasonable level of assurance in accordance with the ISO 14064-3 standard.

9.1 (8) Materiality is determined according to the following formula:

$$\text{Materiality} = \frac{A}{B} \times 100\%$$

Where:

*A* is:

- (a) for the purposes of the verification of greenhouse gas emissions, the sum of the absolute value of all overstatements and understatements of emissions resulting from errors, omissions, and misstatements of greenhouse gas emissions, in tonnes of CO<sub>2</sub>e; or,
- (b) for the purposes of verification of production data, the sum of the absolute value of all overstatements and understatements of production quantification resulting from errors, omissions, and misstatements of production information, in the unit of production selected by the owner or operator of the regulated facility in accordance with section 6.4; and,

*B* is:

- (a) for the purposes of the verification of greenhouse gas emissions, the total regulated emissions, in tonnes of CO<sub>2</sub>e, as corrected by the verification team; or,



- (b) for the purposes of the verification of production data, the total amount of product produced, in the unit of production selected by the owner or operator of the regulated facility in accordance with section 6.4 of the Standard, as corrected by the verification team.

9.1 (9) For the purpose of completing a verification statement for a regulated facility, a material discrepancy in the emissions and production data reported by the owner or operator of the regulated facility will exist if the level of materiality exceeds the following thresholds:

- (a) for greenhouse gas emissions,
  - (i) 5 percent of quantified greenhouse gas emissions for a regulated facility emitting less than 500,000 tonnes CO<sub>2</sub>e in the given compliance period; and,
  - (ii) 2 percent of quantified greenhouse gas emissions for a regulated facility emitting 500,000 tonnes CO<sub>2</sub>e or more in the given compliance period; and
- (b) for production, 0.1 percent of quantified product for the regulated facility.

9.1 (10) The owner or operator of a regulated facility shall ensure that at the end of the verification process, a statement of verification is prepared reflecting a type of verification in Column 1 of Table 3 based on the corresponding determination made by the verification team in Column 2 of Table 3.

9.1 (11) To ensure impartiality with respect to a regulated facility undergoing verification, the owner or operator of a regulated facility shall ensure that:

- (a) an accredited verification body does not perform verification for the regulated facility if it has verified seven consecutive Greenhouse Gas Emissions Reports with respect to the regulated facility, unless three years have elapsed since the last of those reports was verified; and,
- (b) a verification team does not perform verification for the regulated facility if there is known to be a current or potential threat to compromise the impartiality of:
  - (i) a member of the verification team; or,
  - (ii) the accredited verification body for which the verification team is employed.

9.1 (12) For the purposes of performing verification with respect to a regulated facility, a site visit to the facility is required if:

- (a) no verification team has visited the regulated facility for the purposes of conducting a verification in the most recent three compliance periods;
- (b) the most recent verification of a Greenhouse Gas Emissions Report with respect to the regulated facility resulted in an adverse verification statement being submitted to the Minister; or
- (c) the verification is the first by the accredited verification body with respect to the regulated facility.

9.1 (13) For the purposes of performing verification with respect to a regulated facility under subsection 6.7(1), a site visit to the facility may be required as determined by the Minister.

**Table 3. Types of Verification**

Type of Verification	Determination of Verification Team
Positive	<p>Both of the following circumstances apply:</p> <ul style="list-style-type: none"> <li>(i) there is a reasonable level of assurance that the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report contains no material discrepancy in emissions or production parameters; and,</li> <li>(ii) the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report was prepared in accordance with this Standard.</li> </ul>
Qualified Positive	<p>Both of the following circumstances apply:</p> <ul style="list-style-type: none"> <li>(i) there is a reasonable level of assurance that the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report contains no material discrepancy in emissions or production parameters; and,</li> <li>(ii) the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report was prepared substantially in accordance with this Standard.</li> </ul>
Adverse	<p>One or both of the following circumstances apply:</p> <ul style="list-style-type: none"> <li>(i) there is a reasonable level of assurance that the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report contains a material discrepancy in emissions or production parameters; and/or</li> <li>(ii) the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report was not prepared substantially in accordance with this Standard.</li> </ul>

## 10. Record Keeping

In accordance with section 26 of the Regulation, all documents and information, including a record of methodologies, procedures or instruments that have been used, that support a report submitted to the Minister under this Standard must be retained by the owner or operator of a regulated facility for a minimum of seven years from the date on which the report was submitted.

## Appendix A

Table A1. Schedule for Greenhouse Gas Emissions Reports and Compliance Reports.

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Compliance period <sup>1</sup>	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	
<b>Verified Greenhouse Gas Emissions Report Submitted<sup>2</sup> for:</b>		-	C1/C2 (June 1 <sup>st</sup> )	C3	C4	C5	C6	C7	C8	C9	C10
<b>Compliance Report Submitted<sup>3</sup> for:</b>		-	C1/C2 (Dec 15 <sup>th</sup> )	C3	C4	C5	C6	C7	C8	C9	C10

<sup>1</sup> Reports and submissions continue to be required every compliance period for the duration of the program,

<sup>2</sup> Verified Greenhouse Gas Emissions Reports must be submitted by June 1<sup>st</sup> of the year indicated.

<sup>3</sup> Compliance Reports must be submitted by December 15<sup>th</sup> of the year indicated.

## Appendix B: Baseline Emissions Intensity - Example

The following example is intended to provide owners and operators of regulated facilities with the guidance necessary to determine the baseline emissions intensity of a regulated facility. This example follows a bottom-up approach, beginning with the direct emissions calculation and ending with the baseline emissions intensity calculation.

This example makes the following assumptions:

- (i) The facility is an existing facility;
- (ii) The baseline years 2018, 2019 and 2020 are used to determine the baseline emission intensity of the regulated facility;
- (iii) The regulated facility produces one product, which will be referred to as “widgets”;
- (iv) The regulated facility does not have a cogeneration unit but has industrial process emissions in the form of nitrous oxide (N<sub>2</sub>O).

### Direct Emissions

The GHG emissions associated with production of widgets must first be aggregated and quantified into the appropriate regulated sources. Following the quantification methodologies established by ECCC in the Gazette Notice, it was estimated that the facility’s direct GHG emissions associated with the production of widgets by regulated sources were as summarized in Table B1.

Table B1. Direct GHG Emissions from Regulated Sources in Each Baseline Year (tonnes of CO<sub>2</sub>e).

Regulated Source	2018	2019	2020
<b>Stationary Fuel Combustion</b>	55,000	57,000	54,000
<b>Industrial Process Emissions</b>	22,500	24,000	21,000
<b>Venting</b>	1,000	800	900
<b>Flaring</b>	2,500	2,700	2,200
<b>On-site Transportation</b>	500	400	400

Using the data from Table B1, the direct emissions associated with the production of widgets in the 2018 baseline year can be determined by summing the emissions from each regulated source from that year, as:

$$DE_{widget\_2018} = \sum ES_{widget\_2018}$$

$$DE_{widget\_2018} = 55,000 \text{ t CO}_2\text{e} + 22,500 \text{ t CO}_2\text{e} + 1,000 \text{ t CO}_2\text{e} + 2,500 \text{ t CO}_2\text{e} + 500 \text{ t CO}_2\text{e}$$

$$DE_{widget\_2018} = 81,500 \text{ t CO}_2\text{e}$$

Using the same approach, the direct emissions for the other two remaining baseline years can be calculated. Results are summarized in Table B2.

Table B2. Direct Emissions for the Production of Widgets in each Baseline Year (tonnes CO<sub>2</sub>e).

Baseline Year	2018	2019	2020
Direct Emissions	81,500	84,900	78,500

### **Baseline Emissions**

The baseline emissions associated with the production of widgets for a single baseline year can be determined by taking the sum of direct emissions.

Thus, for the 2018 baseline year, the baseline emissions associated with the production of widgets is:

$$BE_{widget\_2018} = DE_{widget\_2018}$$

$$BE_{widget\_2018} = 81,500 \text{ t CO}_2\text{e}$$

Using the same approach, the baseline emissions associated the production of widgets can be determined for the remaining baseline years, as shown in Table B3.

Table B3. Baseline Emissions in Each Baseline Year (tonnes of CO<sub>2</sub>e).

Baseline Year	2018	2019	2020
Baseline Emissions	81,500	84,900	78,500

### **Baseline Emissions Level**

The baseline emissions level is obtained by averaging the baseline emissions associated with the production of a single product over the baseline years. In this example, the baseline emissions level associated with the production of widgets is:

$$BEL_{widget} = \frac{1}{3} \sum_i BE_{widget\_i}$$

$$BEL_{widget} = \frac{1}{3} \times (81,500 \text{ t CO}_2\text{e} + 84,900 \text{ t CO}_2\text{e} + 78,500 \text{ t CO}_2\text{e})$$

$$BEL_{widget} = 81,633 \text{ t CO}_2\text{e}$$

### **Baseline Production Level**

For its part, the baseline production level represents the amount of production of a single product averaged over the baseline years. In this example, the owner or operator of the regulated facility employed the most appropriate quantification methodologies for widgets and a summary of the production profile is presented in Table B4.

Table B4. Production Profile in Each Baseline Year (widgets).

Baseline Year	2018	2019	2020
Widgets Produced	32,000	34,600	33,000

Using the production information provided in Table B4, the baseline production level for the regulated facility is determined as:

$$BPL_{widget} = \frac{1}{3} \sum_i P_{widget\_i}$$

$$BPL_{widget} = \frac{1}{3} \times (32,000 \text{ widgets} + 34,600 \text{ widgets} + 33,000 \text{ widgets})$$

$$BPL_{widget} = 33,200 \text{ widgets}$$

### **Baseline Emissions Intensity**

Finally, the regulated facility's baseline emissions intensity associated with the production of widgets is obtained by dividing the baseline emissions level by the baseline production level as shown below:

$$BEI_{widget} = \frac{BEL_{widget}}{BPL_{widget}}$$

$$BEI_{widget} = \frac{81,633 \text{ t CO}_2e}{33,200 \text{ widget}}$$

$$BEI_{widget} = 2.4588 \text{ t CO}_2e/\text{widget}$$

## Appendix C: GHG Emissions Report - Example

The following example is intended to provide owners and operators of regulated facilities with the guidance necessary to complete a Greenhouse Gas Emissions Report for a regulated facility. The example builds on the example provided under Appendix B with the calculation of total regulated emissions, emissions limit and compliance obligation for the regulated facility.

The example makes the following assumptions:

- (i) The compliance period is 2021;
- (ii) The facility is an existing facility;
- (iii) The owner or operator of the regulated facility previously submitted Baseline Emissions Intensity submission using 2018, 2019 and 2020 as the baseline years;
- (iv) The regulated facility produces one product, referred to as “widgets”;
- (v) The regulated facility does not have a cogeneration unit, but has industrial process emissions in the form of nitrous oxide (N<sub>2</sub>O); and,
- (vi) The regulated facility did not capture any CO<sub>2</sub>.

### Direct Emissions

First, the GHG emissions associated with production of widgets must first be aggregated and quantified into the appropriate regulated sources. Following the quantification methodologies established by ECCC in the Gazette Notice, it was estimated that the facility’s direct GHG emissions associated with the production of widgets by regulated sources were as summarized in Table C1.

Table C1. Direct GHG Emissions from Regulated Sources (tonnes of CO<sub>2</sub>e).

Regulated Source	2021
Stationary Fuel Combustion	56,000
Industrial Process Emissions	20,000
Venting	1,100
Flaring	2,600
On-site Transportation	600

Using the data from Table B1, the direct emissions associated with the production of widgets in the 2021 compliance period can be determined by summing the emissions from each regulated source from that compliance period, as:

$$DE_{widget\_2021} = \sum ES_{widget\_2021}$$

$$DE_{widget\_2021} = 56,000 \text{ t CO}_2\text{e} + 20,000 \text{ t CO}_2\text{e} + 1,100 \text{ t CO}_2\text{e} + 2,600 \text{ t CO}_2\text{e} + 600 \text{ t CO}_2\text{e}$$

$$DE_{widget\_2021} = 80,300 \text{ t CO}_2\text{e}$$



### **Total Regulated Emissions**

The total regulated emissions associated with the production of widgets in the compliance period can be determined by taking the sum of direct emissions minus the captured CO<sub>2</sub> emissions.

Therefore, for the 2021 compliance period, the total regulated emissions associated with the production of widgets is:

$$TE_{widget\_2021} = DE_{widget\_2021} - CE_{widget\_2021}$$

$$TE_{widget\_2021} = 80,300 \text{ t CO}_2e - 0 \text{ t CO}_2e$$

$$TE_{widget\_2021} = 80,300 \text{ t CO}_2e$$

### **Performance Standard Reduction Factor**

Before calculating the performance standard for the regulated facility for the compliance period, the performance standard reduction factor must be determined. These calculations are with respect to the 2021 compliance period (the first year of the program) and the facility is an existing facility, which means the regulated facility is in its first reduction period during the year. Using Table 1 in Schedule A of the Regulation, it can be determined that the performance standard reduction factor for the regulated facility in its first reduction period is:

$$PSRF_1 = 0.99$$

### **Biomass Adjustment Factor and Risk Adjustment Factor**

In this example, the regulated facility does not have a cogeneration unit consuming biomass energy and is not primarily engaged in lime manufacturing. Therefore, the Biomass Adjustment Factor and Risk Adjustment Factor are:

$$BF_1 = 1.0 \text{ and } RF_1 = 1.0$$

### **Performance Standard**

In order to determine the performance standard for a regulated facility in a given compliance period, information from several sources are needed. First, the performance standard reduction factor for the current compliance period must be determined. Second, data from the approved Baseline Emissions Intensity submission for the regulated facility is required. Third, GHG emissions, production data and cogeneration data (if any) for the current compliance period must be determined.

In this example, the baseline data for the regulated facility was taken from the approved Baseline Emissions Intensity submission that was previously submitted to the Minister. A summary of this information is presented in Table C2.

Table C2. Baseline Data for the Regulated Facility.

Baseline Years	Production	Industrial Process Emissions (t CO <sub>2</sub> e)	Baseline Emissions Intensity (t CO <sub>2</sub> e/widget)	Baseline Biomass Adjustment Factor	Risk Adjustment Factor
2018	32,000	22,500	2.4588	1.0	1.0
2019	34,600	24,000			
2020	33,000	21,000			

The emissions and production data required to calculate the performance standard for the regulated facility is shown in Table C3. This data is required to be submitted as part of the Greenhouse Gas Emissions Report for the regulated facility.

Table C3. Current Compliance Period Data.

Production	Industrial Process Emissions (t CO <sub>2</sub> e)	Biomass Adjustment Factor	Risk Adjustment Factor
33,000	20,000	1.0	1.0

Using the above information, the performance standard for widgets produced at the regulated facility in the 2021 compliance period is:

$$PS_{widget\_1} = \left[ \left( BEI_{widget} - \frac{\sum_{i=1}^n (IP_{widget\_i} + EC_{widget\_i})}{\sum_{i=1}^n P_{widget\_i}} \right) \times PSRF_1 + \frac{IP_{widget\_1} + EC_{widget\_1}}{P_{widget\_1}} \right] \times BF_1 \times RF_1$$

$$PS_{widget\_1} = \left[ \left( 2.4588 \text{ t CO}_2\text{e/widget} - \frac{(22,500 \text{ t CO}_2\text{e} + 24,000 \text{ t CO}_2\text{e} + 21,000 \text{ t CO}_2\text{e} + 0 \text{ t CO}_2\text{e} + 0 \text{ t CO}_2\text{e} + 0 \text{ t CO}_2\text{e})}{(32,000 \text{ widgets} + 34,600 \text{ widgets} + 33,000 \text{ widgets})} \right) \times 0.99 + \frac{20,000 \text{ t CO}_2\text{e} + 0 \text{ t CO}_2\text{e}}{33,000 \text{ widgets}} \right] \times 1.0 \times 1.0$$

$$PS_{widget\_1} = \left[ \left( 2.4588 \text{ t CO}_2\text{e/widget} - \frac{67,500 \text{ t CO}_2\text{e}}{99,600 \text{ widgets}} \right) \times 0.99 + \frac{20,000 \text{ t CO}_2\text{e}}{33,000 \text{ widgets}} \right] \times 1.0 \times 1.0$$

$$PS_{widget\_1} = [(2.4588 \text{ t CO}_2\text{e/widget} - 0.6777 \text{ t CO}_2\text{e/widget}) \times 0.99 + 0.6061 \text{ t CO}_2\text{e/widget}] \times 1.0 \times 1.0$$

$$PS_{widget\_1} = [(1.7811 \text{ t CO}_2\text{e/widget}) \times 0.99 + 0.6061 \text{ t CO}_2\text{e/widget}] \times 1.0 \times 1.0$$

$$PS_{widget\_1} = [1.7633 \text{ t CO}_2\text{e/widget} + 0.6061 \text{ t CO}_2\text{e/widget}] \times 1.0 \times 1.0$$

$$PS_{widget\_1} = 2.3694 \text{ t CO}_2\text{e/widget}$$

### **Emissions Limit**

The emissions limit for the regulated facility in the compliance period is determined using the performance standard for widgets calculated previously and the level of production reported in the Greenhouse Gas Emissions Report.

Thus, the emissions limit for the 2021 compliance period is:

$$EL_{2021} = \sum (PS_{widget\_1} \times P_{widget\_2021})$$

$$EL_{2021} = PS_{widget\_1} \times P_{widget\_2021}$$

$$EL_{2021} = 2.3694 \text{ t } CO_2e/widget \times 33,000 \text{ widgets}$$

$$EL_{2021} = 78,190 \text{ t } CO_2e$$

### **Compliance Obligation**

The final calculation that must be performed is the determination of a compliance obligation for the regulated facility in the compliance period. This is done by subtracting the emission limit for the facility in the compliance period from the total regulated emissions reported in the compliance period (as per subsection 17(2) of the Regulation. If the result is a positive value, this is the compliance obligation of the regulated facility.

The calculation for this regulated facility in the 2021 compliance period is:

$$A = B - C$$

$$A = 80,300 \text{ t } CO_2e - 78,190 \text{ t } CO_2e$$

$$A = 2,110 \text{ t } CO_2e$$

Therefore, the regulated facility has exceeded its emissions limit in 2021 and has incurred a compliance obligation of 2,110 tonnes of CO<sub>2</sub>e.

## Appendix D: Verification Report Content Requirements

This Appendix is intended as a guide for the preparation of a verification report, for the purposes of section 9 of the Standard. The purpose of the verification report is to provide reasonable assurance to the Minister that certain emissions-related information required from the owner or operator of a regulated facility is true and accurate.

In accordance with subsections 14(2) and 23(3) of the Regulation, it is the responsibility of the owner or operator of a regulated facility to acquire the services of a qualified person to conduct verification of all Baseline Emission Intensity submissions and Greenhouse Gas Emissions Reports.

It is the responsibility of the verification team to ensure the verification report is prepared in accordance with the requirements established in the Regulation, section 9 of the Standard and this Appendix. If there is a conflict between this Appendix and section 9 of the Standard, section 9 of the Standard shall prevail.

### 1.0 Verification Overview

In this section of the verification report, the verification team shall provide an introduction to the facility and the verification process. This shall include:

- (a) A description of the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report being verified;
- (b) Historical regulated emissions and production levels;
- (c) A summary of changes since the previous Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report; and,
- (d) Any other relevant background information.

#### 1.1 Objective and Scope

In this section of the verification report, the verification team shall describe the objective of the verification report, which includes the requirement to provide an opinion for the verification at the required assurance level.

In addition, the verification team shall define the scope of the verification process in terms of verifying the reported regulated emissions and production information. A list of the greenhouse gases and facility products that were included within the scope of the verification shall be provided.

#### 1.2 Level of Assurance

In this section of the verification report, the verification team shall confirm that the verification report was completed to a reasonable level of assurance in accordance with the Standard and the ISO 14064-3 standard.

### 1.3 Materiality

In this section of the verification report, the verification team shall define the materiality of the verification based on the requirements outlined in the Standard and confirm whether or not the regulated emissions and production data reported by the owner or operator of the regulated facility exceed the materiality thresholds established in the Standard.

### 1.4 Regulatory Requirements

In this section of the verification report, the verification team shall confirm that the verification was conducted in accordance with the requirements and criteria outlines in the Standard. A list of all other supporting documents, legislations, protocols and guidelines that helped guide the verification process should also be provided.

## **2.0 Accredited Verification Body and Verification Team**

In this section of the verification report, the verification team shall provide an overview of the structure of the accredited verification body. The following information should be included:

- (a) Name of the accredited verification body;
- (b) Mailing and physical address (if different);
- (c) Contact information;
- (d) Accrediting agency; and,
- (e) Accreditation ID.

In addition, the verification team shall provide an overview of the verification team and details about the independent reviewer. The following information for the independent reviewer and each member of the verification team shall be included:

- (a) Name;
- (b) Contact information;
- (c) Date of ISO 14064-3 certification;
- (d) Additional qualifications;
- (e) Responsibilities; and,
- (f) Role (lead verifier, designated signing authority, project manager, independent reviewer, etc.).

A signed statement from the independent reviewer indicating that they meet or exceed the qualification requirements found in the Standard shall be included.

## **3.0 Methodology**

### 3.1 Procedures

In this section of the verification report, the verification team shall outline the verification procedures used to assess the regulated facility's data management system and regulated emissions and production data reported in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report. A detailed sampling plan, which describes the nature, scale and complexity of all verification activity shall be provided.

### 3.2 Schedule

In this section of the verification report, the verification team shall provide a schedule of all verification activities. This should include the date, duration and location of all verification activities including:

- (a) Data review;
- (b) Development of Sampling Plan;
- (c) Site visits; and,
- (d) Development of Verification Statement and Report.

### 3.3 Risk Assessment

In this section of the verification report, the verification team shall describe the consideration of risks and how a risk-based approach was used to develop the verification plan. The verification team shall detail how the inherent, control and detection risks were evaluated.

## **4.0 Verification Findings**

### 4.1 Assessment of Data Management Systems and Controls

In this section of the verification report, the verification team shall describe the facility's data management system(s) and quality assurance/quality control systems.

The verification team shall provide a list of all unresolved qualitative and quantitative findings associated with the data management system(s) and assess the potential impacts of these unresolved findings. In addition, the verification team shall detail how the requirements in section 1.4 of this Appendix have or have not been met.

### 4.2 Assessment of Data

In this section of the verification report, the verification team shall provide a summary of findings from the assessment of the data reported by the facility in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report. The following should be included in the summary:

- (a) A list of all data collected during the verification process;
- (b) Sources of all data collected during the verification process. The verification team shall indicate whether the source of data is acceptable for use in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report;
- (c) Confirmation that the regulated emissions and production quantification methods referenced in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report were appropriately employed; and,
- (d) Confirmation that the regulated emissions and production quantification methodologies referenced in the Greenhouse Gas Emissions Report are the same ones used in the Baseline Emissions Intensity submission.
- (e) Confirmation that the regulated emissions and production quantification methodologies referenced in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report are consistent with the emissions reporting requirements established by ECCC in the Gazette Notice, if those methods are applicable, or the most recent IPCC Guidelines for National Greenhouse Gas Inventories.

The verification team shall provide a list of all unresolved qualitative and quantitative findings and assess the potential impacts of these unresolved findings. In addition, the verification team shall detail how the requirements in section 1.4 of this Appendix are or are not met.

#### 4.3 Summary of Findings

In this section of the verification report, the verification team shall provide a summary of all material and immaterial discrepancies. The verification team shall indicate whether the accumulated evidence supports the regulated facility's assertion in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report and whether the assertion meets the required level of assurance and materiality.

#### 4.4 Corrections and Opportunities for Improvement

In this section of the verification report, the verification team shall identify all corrections undertaken at the facility during verification. In addition, where a material discrepancy is detected, the verification team shall identify aspects that can be improved to minimize the risk of future material findings.

### **5.0 Verification Statement**

In this section of the verification report, the verification team shall include a signed verification statement as to whether the regulated emissions and production reported by the owner or operator of the regulated facility in the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report are free from material errors and omission, and whether the Baseline Emissions Intensity submission or Greenhouse Gas Emissions Report was prepared in accordance with the Regulation and Standard.

Any limitations associated with the verification process shall be listed.

### **6.0 Declaration**

In this section of the verification report, the verification team shall include a signed and dated declaration from the lead verifier. The declaration shall state that all requirements of the Regulation and Standard have been met and that any real or potential conflicts of interests have been effectively managed.