

Quantification, Reporting and Verification Regulations
made under Section 112Q of the
Environment Act
S.N.S. 1994-95, c. 1
O.I.C. 2018-43 (effective February 15, 2018), N.S. Reg. 29/2018
amended to O.I.C. 2023-246 (effective September 12, 2023), N.S. Reg. 161/2023

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Interpretation and Application

Citation

1 These regulations may be cited as the *Quantification, Reporting and Verification Regulations*.

Definitions

2 In these regulations,

“accredited verification body” means a verification body that is accredited to ISO 14065 by a member of the International Accreditation Forum;

“Act” means the *Environment Act*;

“biomass” means non-fossilized plants or plant materials or animal waste, or any product made of either of these, and includes all of the following:

- (i) wood and wood products,
- (ii) charcoal,
- (iii) agricultural residues and wastes, including organic matter such as trees, crops, grasses, tree litter or roots,
- (iv) the portion of biologically derived organic matter in municipal and industrial wastes,
- (v) landfill gas,
- (vi) bio-alcohols,
- (vii) black liquor,
- (viii) sludge gas,
- (ix) animal- or plant-derived oils;

“CAN/CSA ISO 14064-3” means the latest version of the Canadian Standard Association’s standard CAN/CSA ISO 14064-3, “Greenhouse gases — Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”;

“CO₂e”, in reference to a quantity of greenhouse gas, means the carbon dioxide equivalent calculated in accordance with Section 18;

“emitter” is further defined as excluding a person to whom greenhouse gas emissions are attributable but who does not meet the reporting thresholds in these regulations;

“facility emitter” means the owner or operator of a facility where a specified GHG activity listed in Table 1 of Schedule 2 is engaged in;

“fractionation facility” means a facility at which natural gas liquid is fractionated into its constituent liquid products, including ethane, propane, normal butane, isobutene or pentanes plus;

“fuel supplier emitter” means the emitters prescribed in Section 13 who engage in a specified GHG activity listed in Table 2 of Schedule 2;

“GHG report” means the report required by clause 112N(a) of the Act respecting quantifying and reporting the nature and amount of greenhouse gas emissions that are attributable to an emitter;

“global warming potential” means, in relation to a greenhouse gas, the global warming potential value set out opposite the name of the gas in the table in Schedule 1;

“*Greenhouse Gas Emissions Regulations*” means the *Greenhouse Gas Emissions Regulations* made under the Act;

“ISO 14065” means the latest version of the International Organization for Standardization’s standard ISO 14065, “Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition”;

“latest version” means, in relation to a standard or other publication, the latest edition of the standard or publication as supplemented, amended, added to, replaced or superseded;

“liquefied natural gas” means natural gas that has been liquefied by reducing its temperature to -162 °C at atmospheric pressure;

“material discrepancy” means a material discrepancy as calculated under Section 43 or 44;

“NAICS” means the latest version of the North American Industry Classification System standard maintained by Statistics Canada;

“natural gas” includes liquefied natural gas and compressed natural gas;

“petroleum product” includes all of the following:

- (i) automotive gasoline,
- (ii) diesels,
- (iii) light-fuel oils (Nos. 1, 2),
- (iv) heavy fuel oils (Nos. 3, 4, 5, 6),

(v) propane;

“pipeline transportation system” means a facility consisting of a system, or part of a system, of pipelines in the Province that transports natural gas, and all of the system’s associated installations, including storage installations but excluding straddle plants or other processing installations;

“QRV Standard” means the latest version of “Standards for Quantification, Reporting and Verification of Greenhouse Gas Emissions” published by the Minister and available from the Minister;

“reporting amount” means the reporting amount determined under

- (i) Section 10, for facility emitters, and
- (ii) Section 14, for fuel supplier emitters;

“reporting threshold” means the threshold amount for reporting under these regulations, as set out in

- (i) Section 9, for facility emitters,
- (ii) Section 15, for fuel supplier emitters;

“specified GHG activity” means an activity for which greenhouse gas emissions are attributable, as set out in Schedule 2;

“transmission system” means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose;

“verification” means, in relation to a GHG report, the verification required by clause 112N(b) of the Act of the nature and amount of greenhouse gases reported by a[n] emitter as being attributable to the emitter, conducted by an accredited verification body in accordance with these regulations, and “verified” and “re-verified” have similar meanings;

“verification amount” means the amount of emissions required to be verified, as set out in

- (i) Section 12, for facility emitters,
- (ii) Section 17, for fuel supplier emitters;

“verification statement” means the statement prepared for a GHG report by an accredited verification body in accordance with Section 41;

“verification threshold” means the threshold amount for verifying GHG reports under these regulations, as set out in

- (i) Section 11, for facility emitters,
- (ii) Section 16, for fuel supplier emitters;

“year” means a calendar year.

Definition of facility

3 (1) In these regulations,

“facility” means all buildings, equipment, structures and stationary items, such as surfaces and storage piles, that meet all of the following criteria:

- (i) they are all owned or operated by the same person,
 - (ii) they are all located as described in 1 of the following:
 - (A) on a single site,
 - (B) on 2 or more adjacent sites that function as a single integrated site,
 - (C) for a pipeline transportation system, a transmission system or a distribution system, on 2 or more sites that are not adjacent;
- (2) In the definition of “facility”, 2 sites are adjacent if the boundary of a site touches the boundary of the other site, or would touch the boundary of the other site were it not for an intervening highway, watercourse, road allowance, railway line, railway allowance or utility corridor.
- (3) For the purposes of these regulations, “facility” does not include a facility located in the offshore area as defined in the *Canada-Nova Scotia Petroleum Resources Accord Implementation (Nova Scotia) Act*.

Application of definitions in ISO standards

4 The definitions set out in CAN/CSA ISO 14064-3 and ISO 14065 apply to any provision of those standards that is incorporated by reference in these regulations, unless the term has been defined in these regulations, in which case the definition in these regulations applies for the purposes of interpreting the provision.

Application of regulations to activities

5 These regulations apply in respect of specified GHG activities engaged in on or after January 1, 2017.

Application of regulations to greenhouse gases

6 These regulations apply only in respect of the greenhouse gases listed in Schedule 1.

GHG Registry registration and information

- 7 (1) The Minister must assign unique registration numbers to emitters registered in the GHG Registry, as established by the Minister.
- (2) Any information submitted under these regulations in a GHG report, verification statement or verification report, or in support of those documents, is deemed to be submitted to the GHG Registry.
- (3) Upon submission of a GHG report, a person is a registrant in the GHG Registry and remains a registrant while under a continuing duty to report under Section 20.

Change in owner or operator

- 8 (1) If there is a change during a year in the owner or operator of a facility, the owner or operator at the end of the year is deemed to have been the owner or operator for the entire year.
- (2) If there is a change during a year in the owner or operator of a fuel supplier emitter, the owner or operator at the end of the year is deemed to have been the owner or operator for the entire year.

Facility Emitters

Reporting threshold for facility emitters

- 9 A GHG report submitted by a facility emitter must include the amount of greenhouse gas emitted during all specified GHG activities at the facility during a year if the reporting amount for the facility for that year is 50 000 t of CO₂e or more.

Calculation of reporting amount for facility emitter

- 10 The reporting amount for a facility emitter must be calculated in accordance with the following formula:

$$R = A - B$$

in which

R = the reporting amount

A = the amount of greenhouse gas emitted during all specified GHG activities engaged in at the facility

B = the portion of A that is carbon dioxide emitted from the combustion of biomass.

Verification threshold for facility emitters

- 11 The verification of a facility emitter's GHG report required by clause 112N(b) of the Act must be conducted if the verification amount in respect of the facility for the year is 50 000 t of CO₂e or more.

Calculation of verification amount for facility emitters

- 12 The verification amount for a facility emitter must be calculated in accordance with the following formula:

$$V = (A - B) - (C - D)$$

in which

V = the verification amount

A = the amount of greenhouse gas emitted during all specified GHG activities engaged in at the facility

B = the portion of A that is carbon dioxide emitted from the combustion of biomass

C = the portion of A that is emitted

(i) from coal storage,

(ii) as fugitive emissions during the operation of equipment related to the transmission, storage and transportation of natural gas,

(iii) as fugitive HFC emissions during the operation of cooling units at

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(iv) as fugitive emissions during the operation of geothermal electricity generating facilities,

(v) as CH₄ from all ventilation and degasification systems in underground coal mining,

(vi) as CH₄ and N₂O emissions from anaerobic wastewater treatment,

(vii) as process CO₂ emissions from calcination and feed oxidation in cement production,

- (viii) as fugitive leaks and fugitive emissions from natural gas production, processing, transmission, storage and distribution equipment, and
- (ix) as CO₂ emissions from the addition of makeup chemicals (CaCO₃, Na₂CO₃) or carbonates in the chemical recovery areas of chemical pulp mills.

D = the portion of C that is carbon dioxide emitted from the combustion of biomass.

Fuel Supplier Emitters

Categories of emitters

13 All of the following persons who engage in a specified GHG activity listed for the corresponding category of emitter in Table 2 of Schedule 2 are fuel supplier emitters:

Category of Emitter	Criteria
Category 1-Natural Gas Distributor	a person who distributes natural gas in the Province
Category 2-Petroleum Product Supplier	any of the following who supplies petroleum products in the Province: (a) an owner or operator of a petroleum product refinery (b) an owner or operator of a fractionation facility (c) a person who imports a petroleum product into the Province or distributes a petroleum product in the Province
Category 3-Electricity Importer	a person who imports electricity into the Province

Reporting amounts for fuel supplier emitters

14 The reporting amounts to be quantified for specified GHG activities engaged in by a fuel supplier emitter are as set out in the following table:

Category of Emitter	Reporting Amount
Category 1-Natural Gas Distributor	the amount of greenhouse gas that would be emitted from the consumption of the natural gas distributed by the person
Category 2-Petroleum Product Supplier	the amount of greenhouse gas that would be emitted from the use of the petroleum products supplied by the person
Category 3-Electricity Importer	the amount of greenhouse gas that would be emitted from the generation of the electricity imported by the person

Reporting thresholds for fuel supplier emitters

15 A GHG report submitted by a fuel supplier emitter must include the amount of greenhouse gas emitted, or that would be emitted, under Section 14 during a year if the following reporting thresholds are met:

Category of Emitter	Reporting Threshold
Category 1-Natural Gas Distributor	the amount is 10 000 t of CO ₂ e or more
Category 2-Petroleum Product Supplier	the amount of petroleum products supplied during the year is 200 L or more
Category 3-Electricity Importer	the amount is 10 000 t of CO ₂ e or more

Verification threshold for fuel supplier emitters

16 The verification of a fuel supplier emitter's GHG report required by clause 112N(b) of the Act must be conducted if the reporting amount under Section 14 during a year meets the reporting threshold in Section 15.

Verification amount for fuel supplier emitters

- 17** (1) Subject to subsection (2), the verification amount referred to in these regulations in respect of a fuel supplier emitter is the reporting amount.
- (2) The verification amount for a fuel supplier emitter does not include the amount of CO₂ that is emitted from the combustion of biomass.

Quantification of Greenhouse Gas Emissions

Calculation of amount of greenhouse gas

18 (1) The amount of greenhouse gas in metric tons of CO₂e must be calculated in accordance with the following formula:

in which

$E =$ the amount of greenhouse gas, expressed in metric tons of CO₂e

$GHG_i =$ the total amount of greenhouse gas i , expressed in metric tons

$GWP_i =$ the global warming potential for greenhouse gas i

$n =$ the number of greenhouse gases

i = the greenhouse gas.

- (2) All amounts of greenhouse gas quantified must be expressed as metric tons of CO₂e.
- (3) If a reporting amount or verification amount is a number that is not a whole number when expressed in metric tons, the number must be rounded up to the nearest metric ton.

Standard quantification methods

- 19 (1) Except as provided in subsection (2), an emitter must use the standard quantification methods set out in the QRV Standard to quantify the amount of greenhouse gas emitted during, or associated with, each specified GHG activity engaged in.
- (2) An emitter may quantify a greenhouse gas using a method approved by the Minister if
 - (a) for a facility emitter, the QRV Standard does not contain a quantification method for 1 or more greenhouse gases generated from a source at a facility; or
 - (b) the QRV Standard contains a quantification method for quantifying greenhouse gases emitted during all specified GHG activities at a facility, or greenhouse emissions associated with natural gas distribution, but
 - (i) the emitter is quantifying a maximum of the lesser of
 - (A) 20 000 t, and
 - (B) 3% of the amount of greenhouse gas emitted, or associated with, the specified GHG activities during a year, or
 - (ii) the Minister is satisfied that the best alternative quantification method proposed by the emitter is at least as accurate as the standard quantification method set out in the QRV Standard, and the Minister provides written consent for its use.
- (3) If the standard quantification methods set out in the QRV Standard in respect of a specified GHG activity include a choice of calculation methodologies, an emitter must select 1 of the calculation methodologies and use it for all subsequent quantifications in respect of the activity, unless the Minister consents in writing to the use of another methodology.
- (4) If the Minister consents to the use of another methodology under this Section for a specified GHG activity, an emitter must use the methodology consented to for all subsequent quantifications in respect of the activity, unless the Minister consents in writing to the use of another methodology.

Continuing Duty to Report and Verify

Reporting, quantification and verification requirements continue unless conditions met

- 20** (1) Despite the reporting thresholds and verification thresholds in these regulations and except as provided in Section 21, a person to whom greenhouse gas emissions are attributable must continue to comply with the reporting, quantification and verification requirements of these regulations unless, for each of the 3 immediately preceding years all of the following apply:
- (a) the emitter has complied with these regulations;
 - (b) the reporting amount was lower than the reporting threshold.
- (2) Subsection (1) ceases to apply when the reporting amount for a year is equal to or more than the reporting threshold.

Specified GHG activities ceased permanently

- 21** (1) Section 20 does not apply to an emitter who ceases to engage in specified GHG activities permanently.
- (2) An emitter described in subsection (1) must do all of the following:
- (a) notify the Minister that the activities have ceased permanently;
 - (b) give the Minister a GHG report in respect of the final year in which the activities were engaged in at the facility;
 - (c) have the GHG report in clause (b) verified and submit a verification statement to the Minister in respect of the report if a verification statement was submitted to the Minister for the immediately preceding year.

Reports

GHG reports

- 22** (1) A GHG report submitted by a facility emitter must be for all specified GHG activities engaged in at a facility.
- (2) A separate GHG report must be submitted for each facility owned or operated by a facility emitter.
- (3) A separate GHG report must be submitted for each specified GHG activity engaged in by a fuel supplier emitter.
- (4) A GHG report mentioned in subsection (1) may not be combined with a GHG report mentioned in subsection (3).

Sampling, analysis etc. in accordance with QRV Standard

- 23** In preparing and submitting a GHG report, an emitter must comply with all applicable sampling, analysis and measurement requirements, including record keeping, set out in the QRV Standard.

Contents of all GHG reports

- 24** All GHG reports must contain all of the following information:

- (a) the name and address of the emitter and the address of the facility the report is prepared for;
- (b) the business number assigned to the emitter by the Canada Revenue Agency;
- (c) the GHG Registry number provided by the Minister;
- (d) any National Pollutant Release Inventory number assigned to the emitter by the federal Department of Environment;
- (e) the year to which the report relates;
- (f) production parameters, material usage and process data to be included in the report under the QRV Standard;
- (g) the total carbon dioxide emissions from the combustion of biomass during the activities with respect to which the report is prepared;
- (h) a description of the type of biomass used and the quantity;
- (i) any information required to be reported in the QRV Standard, including information relating to quantifications and calculations performed under these regulations;
- (j) the emissions estimation methods used in accordance with the QRV Standard;
- (k) the date that the report is submitted to the Minister;
- (l) a statement, signed and dated by an individual who is authorized by the emitter to sign on behalf of the emitter, certifying all of the following:
 - (i) that the individual has examined the report to ensure that it is complete and accurate,
 - (ii) that the report has been prepared in accordance with these regulations,
 - (iii) that the statements and information contained in the report are true and accurate to the best of the individual's knowledge.

Contents of GHG report for facility emitters

- 25** (1) In addition to the information required by Section 24, a GHG report for a facility emitter must contain all of the following information for the reporting year:
- (a) the primary NAICS code and any secondary and tertiary NAICS codes associated with each specified GHG activity engaged in at the facility;
 - (b) the reporting amount;
 - (c) the verification amount;
 - (d) the total amount of greenhouse gases emitted during each specified GHG activity during the year, expressed in metric tons of CO₂e;
 - (e) the amount of each greenhouse gas, expressed in metric tons, emitted during each specified GHG activity during the year;
 - (f) the estimated amount of carbon dioxide that is sequestered at the facility from the specified GHG activities, and an explanation of how the estimated total was determined, including an explanation of how the carbon dioxide may have been used, transferred from or stored at the facility.
- (2) For the purposes of emissions reported under subsection (1), if the QRV Standard specifies that certain emissions are to be reported as emitted from a specified GHG activity, the emissions must be reported as specified in the QRV Standard.

GHG report for fuel supplier emitter

- 26** In addition to the information required by Section 24, a GHG report for a fuel supplier emitter must contain all of the following information:
- (a) the primary NAICS code and any secondary and tertiary NAICS codes associated with the specified GHG activity;
 - (b) the amount of the greenhouse gas emissions associated with the specified GHG activity engaged in.

Deadlines for submitting GHG reports

- 27** (1) Except as provided in subsections (2) and (3), a GHG report must be submitted to the Minister no later than May 1 in the year immediately after the reporting year.
- (2) A GHG report submitted for the year 2018 must be submitted to the Minister no later than June 1, 2019.
- (3) Despite subsection (1), and after May 1, 2023, except for a revised GHG report or verification statement that may be required in accordance with Sections 29, 30, 31, 32 or 33, a GHG report is not required for the 2023 reporting year or any later year.

Deadline for verification statement for GHG report

- 28** (1) Except as provided in subsection (2), a verification statement required for a GHG report must be submitted to the Minister no later than May 1 of the same year in which the GHG report is required to be given to the Minister.
- (2) A verification statement required for a GHG report submitted in 2019 must be submitted to the Minister no later than September 1, 2019.

Revised GHG Reports

Revised GHG report required by Minister

- 29** (1) If the Minister is of the opinion that a GHG report has not been prepared in accordance with the Act or these regulations, the Minister may require the emitter to submit a revised GHG report by notification in writing.
- (2) A revised GHG report required under this Section must be submitted to the Minister no later than 90 days after the date the Minister gave the person notice under subsection (1).

Revised GHG report required if material discrepancy

- 30** (1) An emitter who becomes aware of an error, omission or misstatement in a GHG report after the date the report was submitted, and before September 15, 2023, must submit a revised report if they make 1 or more of the following determinations:
- (a) a material discrepancy in emissions exists;
 - (b) a material discrepancy in a production parameter exists.
- (2) A revised GHG report must not be submitted after September 15, 2023.

Voluntarily submitting revised GHG report to correct error, omission or misstatement

- 31** An emitter who becomes aware of an error, omission or misstatement in a GHG report after the date the report was submitted, and before September 15, 2023, may revise the report and submit the revised GHG report to the Minister even if a material discrepancy does not exist.

Deadlines for submitting revised GHG report to correct error, omission or misstatement

- 32** (1) Except as provided in subsection (2), a revised GHG report submitted to correct an error, omission or misstatement under Section 30 or 31 before September 15, 2023, must be submitted to the Minister as soon as possible after the date the emitter became aware of the error, omission or misstatement.
- (2) A revised GHG report that is required to be verified under Section 33 must be submitted to the Minister no later than 90 days after the date the emitter became aware of the error, omission or misstatement.

Verification of revised GHG report

- 33** (1) A revised GHG report must be verified in accordance with these regulations and a new verification statement prepared and submitted to the Minister if either of the following circumstances applies:
- (a) the revised GHG report would have been required to be verified if it had been the original GHG report;
 - (b) the original GHG report was required to be verified.
- (2) A verification statement for a revised GHG report must be submitted to the Minister no later than 120 days after the following applicable date:
- (a) the date the Minister provided notice under Section 29;
 - (b) the date the emitter became aware of the error, omission or misstatement that led them to prepare the revised GHG report in accordance with Section 32.

Duties of Accredited Verification Bodies

Compliance with standards

- 34** In verifying GHG reports, an accredited verification body must comply with all of the following provisions of the specified standards:
- (a) subclause 6.3 of ISO 14065 (“Deployment of personnel”), as it relates to verification teams; and
 - (b) subclauses 4.2 to 4.10 of CAN/CSA ISO 14064-3, as they relate to verification, except for subclauses 4.3.1 (“Level of assurance”) and subclause 4.3.5 (“Materiality”).

Verifiers and peer reviews

- 35** In verifying GHG reports, an accredited verification body must ensure that all of the following requirements for verifiers and peer reviews are met:
- (a) any person selected to form part of a verification team meets the requirements for a verifier set out in subclause 4.1 of CAN/CSA ISO 14064-3 (“Validators or verifiers”);
 - (b) no person selected to form part of a verification team subcontracts any part of conducting the verification to another person;
 - (c) each verification is reviewed by a peer reviewer in accordance with subclause 8.5 of ISO 14065 (“Review and issuance of validation or verification statement”), as it relates to verification activities;
 - (d) before a verification statement is prepared, the determination that forms the basis of the statement is reviewed by the peer reviewer.

Visit to facility required

36 To assess data and information under subclause 4.6 of CAN/CSA ISO 14064-3 (“Assessment of GHG data and information”), an accredited verification body must visit a facility emitter’s facility for the purpose of verifying the emitter’s GHG report if any of the following apply:

- (a) the report is the first report with respect to the facility;
- (b) an accredited verification body has not visited the facility for the purposes of conducting a verification for either of most recent 2 reports for the facility;
- (c) the most recent verification of a report for the facility resulted in an adverse verification statement;
- (d) the verification is the accredited verification body’s first verification conducted of a report for the facility;
- (e) the accredited verification body is of the opinion that a visit to the facility is necessary to determine whether the report contains a material discrepancy.

Visit to headquarters or location of central data management required

37 To assess data and information under subclause 4.6 of CAN/CSA ISO 14064-3 (“Assessment of GHG data and information”), an accredited verification body must visit a fuel supplier emitter’s headquarters or other location of central data management for the purpose of verifying the emitter’s GHG report if any of the following apply:

- (a) the report is the emitter’s first report with respect to the specified GHG activity;
- (b) an accredited verification body has not visited the headquarters or other location for the purposes of conducting a verification for either of the emitter’s most recent 2 reports for the specified GHG activity;
- (c) the most recent verification of a report by the emitter for the specified GHG activity resulted in an adverse verification statement;
- (d) the verification is the accredited verification body’s first verification conducted of a report by the emitter for the specified GHG activity;
- (e) the accredited verification body is of the opinion that a visit to the headquarters or other location is necessary to determine whether the report contains a material discrepancy.

Verification of certain amounts not required

- 38** An accredited verification body is not required to verify any amounts set out in a GHG report that correspond to the amounts identified by the variables “B” and “C” in Section 12.

Impartiality and conflicts of interest

- 39** (1) An accredited verification body must comply with subclause 5.4 of ISO 14065 (“Impartiality”).
- (2) An accredited verification body must not conduct a verification of a GHG report if any of the following circumstances apply:
- (a) the accredited verification body has a potential conflict of interest that is a threat to the body’s impartiality or there is another threat to the body’s impartiality and the threat cannot be effectively managed with a mitigation plan that the Minister has consented to in writing;
 - (b) the accredited verification body has provided greenhouse gas consultancy services to the emitter within the immediately preceding 3 years and the resulting threat to the body’s impartiality cannot be effectively managed with a mitigation plan that the Minister has consented to in writing; or
 - (c) the accredited verification body has verified reports for the emitter within the immediately preceding 3 years resulting in a total of 6 consecutive reports for an emitter.
- (3) In clause (2)(b),
- “provided greenhouse gas consultancy services” means provided any of the following services:
- (i) greenhouse gas quantification,
 - (ii) greenhouse gas data monitoring or recording,
 - (iii) greenhouse gas information system or internal auditing services,
 - (iv) training that supports greenhouse gas emissions reporting under these regulations or any other greenhouse gas reporting program.
- (4) An accredited verification body who ceases to verify an emitter’s GHG reports, after having verified their reports for 2 or more consecutive years, must not verify another GHG report for the emitter until at least 3 years have passed.
- (5) In this Section, a GHG report includes a report prepared under the *Greenhouse Gas Emissions Regulations*.

Written assessment of impartiality

- 40** (1) Before conducting a verification of a GHG report, an accredited verification body must assess the potential for any compromised impartiality in conducting the

verification and, if any potential is identified, provide the Minister with a written assessment report and propose a mitigation plan to resolve it for the Minister's approval.

- (2) If any potential compromise of an accredited verification body's impartiality arises after verification of a GHG report has begun, the body must immediately undertake the assessment required by subsection (1) and provide the Minister with a written assessment report in accordance with that subsection.

Verification statements

41 (1) When verifying a GHG report, an accredited verification body must determine all of the following in accordance with this Section:

- (a) whether there is a reasonable level of assurance that the report contains no material discrepancy;
- (b) whether the report was prepared in accordance with these regulations.

(2) At the end of a verification, an accredited verification body must prepare 1 of the types of verification statements set out in the following table, in accordance with the determination made by the body:

Type of verification statement	Determination of accredited verification body
Positive	<p>Both of the following circumstances apply:</p> <ol style="list-style-type: none"> 1 there is a reasonable level of assurance that the GHG report contains no material discrepancy in emissions 2 the GHG report was prepared in accordance with these regulations
Qualified positive	<p>Both of the following circumstances apply:</p> <ol style="list-style-type: none"> 1 there is a reasonable level of assurance that the GHG report contains no material discrepancy in emissions 2 the GHG report was prepared substantially in accordance with these regulations
Adverse	<p>One or both of the following circumstances apply:</p> <ol style="list-style-type: none"> 1 there is a reasonable level of assurance that the GHG report contains a material discrepancy in emissions 2 the GHG report was not prepared substantially in accordance with these regulations

- (3) An accredited verification body must provide the emitter whose GHG report was verified with the verification statement in respect of the GHG report and must ensure that the verification statement meets the requirements set out in subclause 4.9 of CAN/CSA ISO 14064-3 (“Validation and verification statement”).

Production parameter verification conclusion

- 42 For each production parameter listed in the QRV Standard for the specified GHG activities addressed by a GHG report, an accredited verification body must include 1 of the production parameter verification conclusions set out in the following table in its verification statement and verification report, in accordance with the determination made by the body:

Type of verification conclusion	Determination of accredited verification body
Positive	Both of the following circumstances apply: <ol style="list-style-type: none"> 1 there is a reasonable level of assurance that the GHG report contains no material discrepancy in the production parameter 2 the production parameter in the GHG report was prepared in accordance with these regulations
Qualified positive	Both of the following circumstances apply: <ol style="list-style-type: none"> 1 there is a reasonable level of assurance that the GHG report contains no material discrepancy in the production parameter 2 the production parameter in the GHG report was prepared substantially in accordance with these regulations
Adverse	One or both of the following circumstances apply: <ol style="list-style-type: none"> 1 there is a reasonable level of assurance that the GHG report contains a material discrepancy in the production parameter 2 the production parameter in the GHG report was not prepared substantially in accordance with these regulations

Material discrepancy in emissions

- 43 (1) A material discrepancy in emissions exists if the percent discrepancy calculated under subsection (2) is 5% or more.

- (2) The percent discrepancy in subsection (1) must be calculated in accordance with the following formula:

$$PD = (SOU \div VA) \times 100$$

in which

PD = percent discrepancy

SOU = the net result of summing overstatements and understatements resulting from errors, omissions and misstatements, expressed in metric tons of CO₂e

VA = the verification amount.

- (3) A material discrepancy in emissions exists if the individual or aggregate effect of 1 or more errors, omissions or misstatements identified in the course of verification makes it probable that there is a discrepancy of 5% or more in the verification amount.

Material discrepancy in production parameter

- 44 (1) A material discrepancy in a production parameter exists if the percent discrepancy for the production parameter reported in respect of a specified GHG activity is 0.1% or more.
- (2) The percent discrepancy for each production parameter reported in respect of a specified GHG activity must be calculated in accordance with the following formula:

$$PD = ((QPP_v - QPP_i) \div QPP_i) \times 100$$

in which

PD = percent discrepancy for the production parameter

QPP_v = revised quantity of the production parameter

QPP_i = quantity of the production parameter as set out in the report.

Verification report

- 45 (1) At the end of a verification, an accredited verification body must prepare a verification report of the GHG report that sets out at least all of the following:
- (a) the proposed verification statement;
 - (b) the verification amount, as verified by the body;
 - (c) a description of the objectives and scope of the verification and the criteria applied in conducting the verification;
 - (d) the date of each site visit conducted;
 - (e) a description of the data and information supporting the verification report;

- (f) details of the independent quantifications and checking of all of the data and information supporting the verification report;
 - (g) a record of any error, omission, misstatement or non-compliance identified during the verification;
 - (h) a record of any corrections made to the GHG report as a result [of] identifying anything mentioned in clause (g);
 - (i) an assessment of the data management systems;
 - (j) a summary of its conclusions;
 - (k) the peer reviewer's approval of the verification report and the proposed verification statement;
 - (l) the proposed production parameter verification conclusions.
- (2) An accredited verification body must provide a copy of a verification report prepared under subsection (1) to the emitter whose GHG report was verified no later than the date that the verification statement is provided under subsection 41(3).

Powers of Minister Regarding Verification

Re-verification of GHG report required by Minister

- 46** (1) The Minister may require an emitter's GHG report to be re-verified by notifying, in writing, both the emitter and the accredited verification body that verified the report.
- (2) Unless the time period is extended under subsection (3), an emitter must submit a verification statement for a re-verified GHG report to the Minister no later than 120 days after receiving notice under subsection (1).
- (3) If a notice under subsection (1) specifies that the GHG report must be re-verified by a different accredited verification body in accordance with subsection (4), the Minister may extend the time period in subsection (2) by up to 60 days, and must specify the extension in the notice.
- (4) The Minister may require that a different accredited verification body re-verify a GHG report if a verification statement for the report was received from an accredited verification body who is required to cease conducting the verification under Section 47.

Powers re compromise to impartiality

- 47** (1) If the Minister determines that there is a compromise to an accredited verification body's impartiality after receiving a written assessment report on impartiality under Section 40, the Minister must do 1 of the following, and notify the accredited verification body of the decision in writing:

- (a) allow the body to continue the verification and consent to the mitigation plan proposed by the body;
 - (b) require the accredited verification body to cease conducting the verification, and refuse to consent to any proposed mitigation plan.
- (2) An accredited verification body must comply with the Minister's requirement under clause (1)(b).

Information Requests, Records and Forms

Requests for information

- 48** (1) The Minister may require a person to whom GHG emissions are attributable who has not submitted a GHG report to the Minister to provide any or all of the following:
- (a) sufficient information, including biomass quantifications, demonstrating that they do not meet the reporting thresholds in these regulations;
 - (b) copies of any submissions that they are required to make to the federal government under section 46 of the *Canadian Environmental Protection Act, 1999* (Canada).
 - (c) a report setting out all of the following information in respect of greenhouse gas emissions related to their activities during any year before the first year that they meet the reporting thresholds in these regulations:
 - (i) quantifications of greenhouse gas emissions attributable to the emitter, determined using 1 of the following quantification methods:
 - (A) the applicable standard quantification methods set out in the QRV Standard,
 - (B) if the person is unable to use the applicable standard quantification methods set out in the QRV Standard, the applicable best alternative quantification methods set out in the QRV Standard for the activities or another method that is consented to by the Minister in writing,
 - (ii) a description of the quantification method used and the data used in the quantifications,
 - (iii) any information specified by the Minister that is related to the quantifications.
- (2) The report required by clause (1)(c) must be prepared based on information that is in the custody and control of the person or to which the person has, or reasonably can obtain, access.

- (3) The Minister may require a facility emitter or a fuel supplier emitter who has provided a GHG report to the Minister to provide copies of any submissions that they are required to make to the federal government under section 46 of the *Canadian Environmental Protection Act, 1999* (Canada).

Retention of records by emitters

49 An emitter who submits a GHG report must keep all records related to the report, as follows:

- (a) they must comply with the same record retention requirements that apply to verifiers in subclause 4.10 of CAN/CSA ISO 14064-3 (“Validation or verification records”); and
- (b) they must keep the records set out in Schedule 3, in paper or electronic format, for at least 7 years after the year to which the information relates.

Retention of records by accredited verification bodies

50 An accredited verification body must keep all of the following records, in paper or electronic format, for at least 7 years after the date they are created or submitted:

- (a) any documents and records generated during a verification;
- (b) verification statements;
- (c) verification reports;
- (d) any documents that the conclusions in a verification statement or a verification report were based on.

Change in owner or operator of reporting emitter

51 If there is a change in the owner or operator of an emitter during a year in which the emitter meets the reporting thresholds under these regulations, the new owner or operator must notify the Minister in writing of the change no later than 30 days after the change.

Forms of records submitted

- 52** (1) A record that is required to be given or submitted under these regulations, other than a record required to be given or submitted by the Minister, must be submitted in a form provided by or approved by the Minister and in a manner approved by the Minister.
- (2) The Minister may require that any record required to be submitted to the Minister under these regulations be in an electronic format specified by the Minister.

Schedule 1—Greenhouse Gases and Global Warming Potentials

Item	Column 1 Common Name of Greenhouse Gas	Column 2 Chemical Formula	Column 3 Chemical Name
1	Carbon dioxide	CO ₂	Carbon dioxide
2	Methane	CH ₄	Methane
3	Nitrous oxide	N ₂ O	Nitrous oxide
4	Sulfur hexafluoride	SF ₆	Sulfur hexafluoride
5	Nitrogen trifluoride	NF ₃	Nitrogen trifluoride
6	HFC-23	CHF ₃	Trifluoromethane
7	HFC-32	CH ₂ F ₂	Difluoromethane
8	HFC-41	CH ₃ F	Fluoromethane
9	HFC-43-10mee	C ₅ H ₂ F ₁₀	1, 1, 1, 2, 3, 4, 4, 5, 5, 5-Decafluoropentane
10	HFC-125	C ₂ HF ₅	Pentafluoroethane
11	HFC-134	C ₂ H ₂ F ₄	1, 1, 2, 2-Tetrafluoroethane
12	HFC-134a	C ₂ H ₂ F ₄	1, 1, 1, 2-Tetrafluoroethane
13	HFC-143	C ₂ H ₂ F ₃	1, 1, 2-Trifluoroethane
14	HFC-143a	C ₂ H ₂ F ₃	1, 1, 1-Trifluoroethane
15	HFC-152	C ₂ H ₄ F ₂	1, 2-Difluoroethane
16	HFC-152a	C ₂ H ₄ F ₂	1, 1-Difluoroethane
17	HFC-161	C ₂ H ₅ F	Fluoroethane
18	HFC-227ea	C ₃ HF ₇	1, 1, 1, 2, 3, 3, 3-Heptafluoropropane
19	HFC-236cb	C ₃ H ₂ F ₆	1, 1, 1, 2, 2, 3-Hexafluoropropane
20	HFC-236ea	C ₃ H ₂ F ₆	1, 1, 1, 2, 3, 3-Hexafluoropropane
21	HFC-236fa	C ₃ H ₂ F ₆	1, 1, 1, 3, 3, 3-Hexafluoropropane
22	HFC-245ca	C ₃ H ₃ F ₅	1, 1, 2, 2, 3-Pentafluoropropane
23	HFC-245fa	C ₃ H ₃ F ₅	1, 1, 1, 3, 3-Pentafluoropropane
24	HFC-365mfc	C ₄ H ₅ F ₅	1, 1, 1, 3, 3-Pentafluorobutane
25	Perfluoromethane	CF ₄	Tetrafluoromethane
26	Perfluoroethane	C ₂ F ₆	Hexafluoroethane
27	Perfluoropropane	C ₃ F ₈	Octafluoropropane
28	Perfluorobutane	C ₄ F ₁₀	Decafluorobutane
29	Perfluorocyclobutane	c-C ₄ F ₈	Octafluorocyclobutane

30	Perfluoropentane	C ₅ F ₁₂	Dodecafluoropentane
31	Perfluorohexane	C ₆ F ₁₄	Tetradecafluorohexane

Schedule 2—Specified GHG Activities

Table 1: Facility Emitters

Category	Specified GHG Activity	Description of Activity
1	Cement production	The cement production consists of each kiln and each masonry, pozzolanic, or other hydraulic cement manufacturing bypasses, and includes kilns and in-line kiln/raw mill
2	Coal storage	The storage of coal at a facility that combusts coal
3	Electricity generation	The operation of any combustion device, including (power) device, that combusts solid, liquid or gaseous electricity, excluding the following: <ul style="list-style-type: none"> 1 the operation of stationary emergency generation of less than 10 MW 2 the operation of portable emergency generation
4	General stationary combustion	The combustion of solid, liquid, or gaseous fuel or stationary combustion equipment for 1 or more of the following: <ul style="list-style-type: none"> 1 producing electricity 2 generating steam or providing useful heat or institutional use 3 pollution control 4 reduction or waste volume
5	Industrial wastewater	Anaerobic treatment at industrial wastewater treatment
6	Operation of equipment for a transmission system or a distribution system (electricity)	The operation of equipment for the purposes of a transmission
7	Operation of equipment related to the transmission, storage and transportation of natural gas	The operation of equipment related to any of the following: <ul style="list-style-type: none"> 1 natural gas transmission compression 2 natural gas storage 3 liquefied natural gas import and export 4 transport of natural gas in a pipeline transportation

8	Petroleum and natural gas production and natural gas processing	The operation of petroleum and natural gas product
9	Pulp and paper production	The production of market pulp or pulp and paper at semi-chemical recovery and lime kilns
10	Underground coal mining	Coal is produced by tunnelling into the earth to the

Definitions for Table 1

(1) In this table,

“general stationary combustion equipment” includes any stationary combustion devices, including boilers, simple and combined cycle combustion turbines, engines, incinerators (including units that combust hazardous waste or gaseous waste) and process heaters, but does not include any of the following:

- (i) portable equipment,
- (ii) stationary emergency generators that have a nameplate generating capacity of less than 10 MW, and
- (iii) any auxiliary fossil-fuel-powered equipment, other than stationary emergency generators, that is intended for use only in emergency situations, including fire pumps and flares;

“portable” means, when used in reference to a piece of equipment, equipment that is designed to be and can be moved from one location to another, unless excluded by subsection (2).

(2) For the purposes of the GHG activities in this table, a piece of equipment is not portable if any of the following apply:

- (a) it is attached to a foundation;
- (b) it is at the same location at the facility for more than 12 consecutive months;
- (c) it has been located at a seasonal facility for 2 or more years and is used on a regular basis during at least 3 months of the year;
- (d) it is moved from one location to another in an attempt to circumvent the requirements of these regulations.

Table 2: Fuel Supplier Emitters

Category	Specified GHG Activity	Description of Activity
Category 1 -Natural Gas	Distributing natural gas in the	Physically delivering natural gas to a person in the

Distributor	Province	to whom it was delivered
Category 2 -Petroleum Product Supplier	Supplying petroleum products in the Province	<p>Supplying a petroleum product by first placing it in the Province or through the transfer or sale of it in the Province or through the transfer or sale of it in the Province for use in the Province.</p> <p>Supplying petroleum products in the Province does not include:</p> <ol style="list-style-type: none"> 1 supplying the product for use as a fuel in a motor vehicle 2 supplying the product for use at a petroleum refinery or fractionation facility 3 transferring or selling the product to the owner or operator of a petroleum refinery in Canada or fractionation facility in Canada under an inter-refinery agreement 4 transferring or selling the product from a supplier to a consumer for petroleum products in the Province 5 importing the product into the Province in a sealed container to supply a fuel's engine 6 supplying the product in a sealed container for use in a motor vehicle
Category 3-Electricity Importer	Importing electricity into the Province	Importing electricity into the Province for use in the Province

Definition for Table 2

In this table,

“inter-refinery agreement” means an agreement between an owner or operator of a petroleum product refinery in Canada or a fractionation facility in Canada and the owner or operator of another petroleum product refinery in Canada or another fractionation facility in Canada for the supply of a petroleum product.

Schedule 3—List of Records to Be Retained by Emitter
(Section 49, *Quantification, Reporting and Verification Regulations*)

- 1 For each GHG report submitted under the regulations:
 - a copy of the report
 - any verification report
 - any information required for verification of the report

- 2 For greenhouse gas emissions, production parameters, material usage or process data:
 - a list of all units, processes, activities and operations that were taken into account in quantifying and estimating

- all records and documents used to quantify or estimate the data for each specified GHG activity, and including fuel usage data
 - documentation of the process for collecting the data
 - a record showing quantifications of the data and the quantification methods used
 - names and documentation of key personnel involved in quantifying and reporting
- 3 A log relating to each year, documenting all procedural changes made in data collection and calculations and changes to instrumentation for estimations and quantifications of greenhouse gas, production parameters, material usage or process data.
- 4 A record showing all emission factors used for quantifications, including documentation for any site-specific factors developed under the applicable standard quantification method.
- 5 All input data used for greenhouse gas estimates.
- 6 Documentation of biomass fractions for specific fuels.
- 7 All data submitted to the Minister under these regulations.
- 8 All quantifications made to fill in any missing data.
- 9 For each measurement-based quantification method used:
- a list of all emission points monitored
 - collected monitoring data
 - quality assurance and quality control information
 - a detailed technical description of the continuous emissions monitoring system, including documentation of any findings and approvals by the Province
 - raw and aggregated data from the continuous emissions monitoring system
 - a logbook showing all system down-times, calibrations, servicing and maintenance of the continuous emissions monitoring system
 - documentation of any changes in the continuous emissions monitoring system over time.

Legislative History Reference Tables

Quantification, Reporting and Verification Regulations
Environment Act

N.S. Reg. 29/2018

Note: The information in these tables does not form part of the regulations and is compiled by the Office of the Registrar of Regulations for reference only.

Source Law

The current consolidation of the *Quantification, Reporting and Verification Regulations* made under the *Environment Act* includes all of the following regulations:

N.S. Regulation	In force date*	How in force	Royal Gazette Part II Issue
29/2018	Feb 15, 2018	date specified	Mar 2, 2018
193/2018	Nov 13, 2018	date specified	Nov 23, 2018
161/2023	Sep 12, 2023	date specified	Sep 22, 2023

The following regulations are not yet in force and are not included in the current consolidation:

N.S. Regulation	In force date*	How in force	Royal Gazette Part II Issue
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*See subsection 3(6) of the *Regulations Act* for rules about in force dates of regulations.

Amendments by Provision

ad. = added
am. = amended

fc. = fee change
ra. = reassigned

rep. = repealed
rs. = repealed and substituted

Provision affected	How affected
7 (3).....	ad. 193/2018
12.....	am. 193/2018
13.....	am. 193/2018
14.....	am. 193/2018
15.....	am. 193/2018
17.....	ra. as 17(1) 193/2018
.. 17(1).....	ra. from 17 193/2018; am. 193/2018
.. 17(2).....	ad. 193/2018
27(1).....	am. 193/2018, 161/2023
27(2).....	am. 193/2018
27(3).....	ad. 161/2023
28.....	rs. 193/2018
30.....	am. 161/2023; ra. as 30(1) 161/2023

ad. = added
am. = amended

fc. = fee change
ra. = reassigned

rep. = repealed
rs. = repealed and substituted

Provision affected	How affected
. 30(1).....	ra. from 30 161/2023
. 30(2).....	ad. 161/2023
31.....	am. 161/2023
32(1).....	am. 161/2023
33(2)(b).....	am. 161/2023
Schedules	
Schedule 1.....	am. 193/2018
Schedule 2, Table 2.....	am. 193/2018

Note that changes to headings are not included in the above table.

Editorial Notes and Corrections:

Note	Effective date
1 Definition of “fuel supplier emitter” in Section 2 moved to correct place in alphabetical order for the purposes of this consolidation.	Feb 15, 2018

Repealed and Superseded:

N.S. Regulation Title	In force date	Repealed date
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Note: Only regulations that are specifically repealed and replaced appear in this table. It may not reflect the entire history of regulations on this subject matter.