The Management and Reduction of Greenhouse Gases (Upstream Oil and Gas Aggregate Facility) Standard

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Saskatchewan

Part 1 - General

1. Introduction

1(1) This Standard is adopted under *The Management and Reduction of Greenhouse Gases (Standards and Compliance) Regulations*.

1(2) Any terms defined in *The Management and Reduction of Greenhouse Gases Act* or *The Management and Reduction of Greenhouse Gases (Standards and Compliance) Regulations* hold the same definition in this Standard.

1(3) If there is any conflict between this Standard and the Act or the Regulations, the Act or the Regulations prevails over this Standard.

2. Definitions

2(1) In this Standard:

"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 Management and Reduction of Greenhouse Gases Act*;

"Aggregate facility" means a collection of individual facilities which meet the requirements of subsection 3(3);

"Associated gas" means gas that is produced at an oil well;

"Authorized signing officer" means a person designated from within a regulated aggregate facility's organization who has authority to accept legal responsibility for the information provided in the facility's emissions return or baseline submission, is in a position to knowledgeably attest to the completeness and accuracy of the return or submission, and provides signed declaration of the emissions return, baseline submission or other information required or requested by the minister;

"Biomass" means non-fossilized 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, but does not include plant or plant materials used as an input in the production of char or briquettes;

"Cogeneration" means for purposes other than gas-to-power operations:

(a) the integrated operation of one or more combustion turbines and steam generators that recover any heat from combustion turbine exhaust gases to supply steam for useful purposes; or

(b) the production of electricity using waste heat or heat recovered from a process that occurs on-site at an individual facility for the purpose of producing one or more products at the individual facility;

"Emission quantification methodology" means the procedure employed by a regulated emitter in accordance with sections 25 or 28, as applicable, to quantify the level of emissions at a regulated aggregate facility;

"Gas-to-power operation" means the generation of electricity from the combustion of associated gas that is integrated into an aggregate facility.

"Independent reviewer" means a person who is qualified, according to subsection 22(7), to review the work of the verification team prior to a statement of verification being created;

"Individual facility" means a single facility as defined in subsection (a) of the definition of a facility in the Regulations which, with one or more other individual facilities located on one or more sites, can comprise an aggregate facility;

"IPCC" means the Intergovernmental Panel on Climate Change under the United Nations;

"ISO" means the International Organization for Standardization;

"ISO 14064-3" means standard ISO 14064-3: 2006, published by the ISO and entitled "Greenhouse gases — Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions";

"ISO 14065" means standard ISO 14065, published by ISO, as amended from time to time;

"Large emitter" or **"large emitter facility"** means a facility that is registered under the Regulations and *The Management and Reduction of Greenhouse Gases (Baselines, Returns and Verification) Standard*.

"Level of assurance" means the depth of detail that a verification team designs into the verification process to determine if there are any material errors, omissions, or misrepresentations;

"Materiality" means the sum of individual errors, omissions, and misstatements that would misrepresent a regulated aggregate facility's greenhouse gas emissions or production;

"Ministry" means the Ministry of Environment;

"Operator" means:

(a) the person recorded as the operator of a facility in the registry; or

(b) the person designated by the minister as the operator of the well or facility;

"Performance standard" means the amount of CO_2e emissions a regulated emitter is allowed to emit without incurring a compliance obligation when producing a unit of product from a given production class at a regulated aggregate facility in the given reduction period of the regulated aggregate facility;

"Production class" means a production class established in Table 2 of Appendix A to which individual facilities within a regulated aggregate facility are assigned;

"Production quantification methodology" means the procedure employed by a regulated emitter to quantify the level of production at a regulated aggregate facility, including detailing the stage of production at which the measurement takes place;

"Registry" means the petroleum registry established pursuant to section 66 of *The Oil and Gas Conservation Act*;

"Regulations" means *The Management and Reduction of Greenhouse Gases (Standards and Compliance) Regulations*;

"Statement of verification" means the formal written declaration by the verification team that provides assurance on the statements in a submission or return by a regulated emitter for a regulated aggregate facility in accordance with the applicable verification criteria in subsection 22(11);

"Verification report" means a written report prepared by a verification team during the verification process with respect to a regulated aggregate facility; and

"Verification team" means a team consisting of one or more qualified persons who satisfy the criteria in subsection 22(4) that conducts a verification on a regulated facility.

2(2) For purposes of this Standard, "abandoned" carries the same meaning, for an individual facility owned or operated by the operator, as in *Directive PNG032: Volumetric, Valuation and Infrastructure Reporting,* as amended from time to time.

2(3) For purposes of subsection 2(1), any references to the term "aggregate facility" after section 4 in this Standard assumes the aggregate facility has been registered in accordance with section 4 and is therefore a regulated facility within the meaning of the Regulations.

2(4) For purposes of this Standard, the upstream oil and gas sector includes straddle and gas processing plants.

2(5) For the purposes of this Standard, a gas-to-power operation is not considered an individual facility.

3. Composition of Aggregate Facilities and Application for Facility Designation

3(1) The minister may direct that any two or more operators are deemed to be one operator for the purposes of this Standard if:

(a) the minister is satisfied that the reason for their separate existence is to reduce the total regulated emissions for an individual facility or an aggregate facility, or the compliance obligation for a regulated emitter;

(b) an operator has in common with another operator any directors, officers, partners, or control persons; or

(c) the minister is satisfied on reasonable grounds that it is appropriate to do so and in the public interest.

3(2) For the purposes of subsection 3(1), before making a direction the minister shall:

(a) Give notice to the operators of the minister's intention to treat the operators as one operator; and

(b) Give the operators an opportunity to make written representations.

3(3) An aggregate facility consists of at least two individual facilities which operate in the upstream oil and gas sector and which:

(a) are operated by the same operator;

(b) must include all individual facilities operated by the operator with regulated emissions less than 25,000 tonnes CO_2e in the year prior to the year in which the aggregate facility is established and which are not already registered under the Regulations;

(c) may include large emitter facilities operated by the operator with total regulated emissions of at least 10,000 but less than 25,000 tonnes CO_2e in the year prior to the year in which the aggregate facility is established and which are registered under the Regulations; and

(d) may not include any individual facility with regulated emissions of at least 25,000 tonnes CO_2e in the year prior to the year in which the aggregate facility is established.

3(4) The operator of an aggregate facility may apply to the minister to have that aggregate facility be deemed a facility under subsection 2(2) of the Regulations.

3(5) An operator may only apply for one designation of an aggregate facility as a facility under the Regulations.

3(6) An application made under subsection 3(4) of this Standard must include a list of all individual facilities to be contained within the aggregate facility which meet the criteria of subsection 3(3) including any individual facilities the operator chooses to include in the aggregate facility under 3(3)(c).

3(7) An individual facility may only be included in one aggregate facility.

3(8) If a large emitter facility is included in the aggregate facility under subsection 3(3)(c), that facility remains registered as a large emitter facility and is subject to the requirements of the Regulations until the aggregate facility is registered.

3(9) The composition of an aggregate facility is not changed following the commencement or ending of operation of an individual facility until the facility information for the aggregate facility is next updated with the ministry in accordance with section 24 or 27, as applicable.

3(10) An aggregate facility, or the individual facilities contained within the aggregate facility, are not subject to or eligible for any provisions regarding standby facilities in the Regulations.

3(11) The provisions for new facilities in the Regulations do not apply to an aggregate facility or any individual facility contained within an aggregate facility.

3(12) Submission of a registration package pursuant to section 4 also fulfills the conditions for an application to have an aggregate facility deemed a regulated facility, pursuant to subsection 3(4).

4. Registration

4(1) To apply to register an aggregate facility, an operator shall submit a Notice of Intent (NOI) for aggregate facility registration to the ministry.

4(2) When an NOI application is made pursuant to subsection 4(1), the ministry will provide a registration package to the operator for the aggregate facility the operator intends to register.

4(3) In completing the registration package for aggregate facilities, it is the responsibility of the operator to ensure that:

(a) all information provided for the aggregate facility, including any information provided by the ministry for the aggregate facility, is accurate;

(b) all applicable sections of the registration package are completed in full;

(c) any required supplementary components, such as a map that demonstrates the location within Saskatchewan of each individual facility to be included in the aggregate facility, are provided; and,

(d) the completed registration package is submitted to the ministry in the manner the ministry specifies.

4(4) If an individual facility to be included within an aggregate facility was previously registered as a large emitter under the Regulations, that individual facility's registration status is transferred from a large emitter facility to the aggregate facility, effective upon the date that registration of the aggregate facility was approved by the minister.

5. Addition of Individual Facilities to an Aggregate Facility

5(1) If an operator begins operation of additional individual facilities after the registration of an aggregate facility, those individual facilities must be included in the aggregate facility for the operator in the next required update to facility information under section 24 or 27 unless:

(a) in the year prior to the year in which the operator began operation of an individual facility, that individual facility had total regulated emissions of 10,000 but less than 25,000 tonnes CO_2e and is already registered as a large emitter under the Regulations; or

(b) in the year prior to the year in which the operator began operation of an individual facility, that individual facility had total regulated emissions of 25,000 tonnes CO_2e or more.

5(2) If an operator did not operate a large emitter facility identified in 5(1)(a) for any portion of the 12 calendar months preceding commencement of operation of the large emitter facility, the large emitter facility may be added to the aggregate facility registered for that operator.

5(3) The registration status for a large emitter facility added to the aggregate facility under subsection 5(2) is transferred from the large emitter facility to the aggregate facility.

5(4) An operator may not include an individual facility identified in 5(1)(b) in the aggregate facility registered for that operator.

5(5) Large emitter facilities which the operator has continuously operated since the time an application was made to the minister under section 3(4), but were not included in the aggregate facility for that operator, may not be added to the regulated aggregate facility at a later date.

5(6) If a large emitter facility that is operated by the operator is removed from registration pursuant to section 7 of the Regulations, that facility must be added to the aggregate facility registered for that operator in the next applicable update to facility information under section 24 or 27.

5(7) Notwithstanding subsection 5(5), a large emitter facility that is operated by the operator may have its registration transferred to the aggregate facility registered for that operator if total regulated emissions from the large emitter facility have remained under 10,000 tonnes CO_2e for the previous 3 or more consecutive years.

6. Removal of Individual Facilities from an Aggregate Facility

6(1) If an individual facility registered in an aggregate facility has total regulated emissions of 25,000 tonnes CO_2e or more, that individual facility must be transferred from the aggregate facility beginning January 1 of the year after the year in which the individual facility had total regulated emissions greater than 25,000 tonnes CO_2e.

6(2) An individual facility that is transferred from an aggregate facility according to subsection 6(1) shall no longer be included in any calculations for the aggregate facility, including permitted emissions and total regulated emissions, beginning January 1 of the year after the year in which the individual facility had total regulated emissions of 25,000 tonnes CO_2e or more.

6(3) If an individual facility is transferred from an aggregate facility under subsection 6(1), registration of that facility continues as a large emitter under *The Management and Reduction of Greenhouse Gases (Baselines, Returns and Verification) Standard* and that facility maintains:

(a) The same first compliance year as when it became part of the aggregate facility; and,

(b) The same reduction period schedule as when it was transferred from the aggregate facility.

6(4) If an individual facility registered in an aggregate facility is sold or abandoned, that individual facility shall be removed from the aggregate facility, effective upon the next required update to facility information for that aggregate facility under sections 24 or 27, as applicable.

7. Reported Data

7(1) Subject to subsection 8(7), a regulated emitter shall ensure that all regulated emissions from an aggregate facility are included and accounted for in all submissions and returns.

7(2) When reporting data in a submission or return for an aggregate facility, a regulated emitter shall report all compliance obligations rounded to the nearest whole number and all other numerical data to four decimal digits.

7(3) A regulated emitter shall convert all quantified emissions included in a submission or return to tonnes of CO_2e.

7(4) If an individual facility is part of an aggregate facility for part of a baseline or compliance year, the emissions and production for that individual facility must be included in the reported data for the aggregate facility for the part of the baseline or compliance year that the individual facility is part of the aggregate facility.

7(5) A regulated emitter must quantify the production for a baseline or compliance year, using the quantification method selected according to Section 9, within a margin of error of ± 5 per cent:

(a) for each individual facility contained within the aggregate facility; and,

(b) notwithstanding clause (a), for the aggregate facility as a whole.

7(6) If, for any reason beyond the control of the regulated emitter, the data required to quantify the emissions at any individual facility of an aggregate facility are missing for a compliance year or baseline year, a regulated emitter shall calculate replacement data using:

(a) quantification methods from Environment and Climate Change Canada's Greenhouse Gas Reporting Program, if those methods are applicable; or

(b) IPCC Guidelines for National Greenhouse Gas Inventories.

7(7) For the purposes of subsection 7(6), a regulated emitter shall use:

(a) for the baseline year, the most recently published version of the chosen quantification methods; and

(b) for a compliance year:

(i) the quantification methods used for the baseline year; or

(ii) if replacement data was not used when establishing the baseline year, the most recently published version of the chosen quantification methods.

7(8) If, for any reason beyond the control of the regulated emitter, the data required to quantify the production at any individual facility of an aggregate facility are missing for a compliance year or baseline year, a regulated emitter shall calculate replacement data using *Directive PNG017 Measurement Requirements for Oil and Gas Operations*.

7(9) A regulated emitter may omit from a submission or return the regulated emissions from a regulated source category at an individual facility within an aggregate facility if the emissions associated with that source are less than 0.5 per cent of the total regulated emissions for that individual facility, within a compliance year.

7(10) The sum of regulated emissions omitted under subsection 7(9) may not exceed 100 tonnes CO_2e for an aggregate facility.

7(11) A gas-to-power operation cannot be integrated into more than one aggregate facility at the same time.

8. Concerning Emissions

8(1) For an aggregate facility, stationary fuel combustion is the only regulated source category that contributes to regulated emissions.

8(2) When determining emissions for an aggregate facility, a regulated emitter shall include all emissions associated with the generation of on-site electricity for each individual facility in the aggregate facility, unless the regulated emitter can demonstrate that the emissions are already subject to a reduction requirement under a different regulation.

8(3) A regulated emitter shall exclude CO_2 emissions from the following emission sources when calculating an aggregate facility's emissions:

(a) the combustion of biomass;

(b) the aerobic decomposition of biomass; and

(c) the fermentation of biomass.

8(4) For the purposes of subsection 8(3), a regulated emitter shall report CH_4 and N_2O emissions for the conditions listed in clauses (a) to (c).

8(5) A regulated emitter shall include emissions associated with electricity generated using cogeneration in an aggregate facility's baseline submission and emissions return, but will be provided 100 per cent allocation for the purpose of determining an aggregate facility's performance standard for a production class.

8(6) The operator of an aggregate facility that has an integrated gas-to-power operation is considered responsible for all emissions from the gas-to-power operation for the portion of the compliance year when the gas-to-power operation was integrated into the aggregate facility.

8(7) The operator of an aggregate facility that has an integrated gas-to-power operation shall not include the stationary fuel combustion emissions from the gas-to-power operation in the baseline emissions level for any production class of the aggregate facility.

8(8) The operator of an aggregate facility that has an integrated gas-to-power operation during a compliance year shall include the stationary fuel combustion emissions from the gas-to-power operation in:

(a) the aggregate facility's permitted emissions for the compliance year; and

(b) the facility's total regulated emissions for the compliance year.

8(9) For the purposes of subsections 17(7), 23(2) and 26(2), the operator of an aggregate facility shall not include the emissions from an integrated gas-to-power operation as part of the aggregate facility's emissions.

9. Products and Production Class

9(1) Regulated emitters will identify or confirm the production class for each individual facility included in an aggregate facility from the list of production classes in Table 2 of Appendix A.

9(2) An individual facility may only be included in one production class.

9(3) Regulated emitters will report production at each individual facility and production class in an aggregate facility as barrel of oil equivalent (BOE).

9(4) Natural gas that is reported in the registry as flare, vent, or fuel at an individual facility included in an aggregate facility is not considered a product.

9(5) The generation of electricity and, if applicable, useful heat from a gas-to-power operation integrated into an aggregate facility shall not be considered a product for the purpose of the Regulations and this Standard.

9(6) A regulated emitter may select a production quantification methodology that provides a transparent and accurate representation of the activities at the aggregate facility.

10. Reduction Periods

10(1) For the purposes of section 11 and Table 1 of the Regulations, a regulated emitter shall establish a reduction period for the aggregate facility as follows:

(a) The first reduction period is applicable to the aggregate facility during the aggregate facility's first compliance year;

(b) for every subsequent compliance year, the subsequent reduction period is applicable to the aggregate facility; and

(c) if additional reduction periods are not available, the final reduction period applies to the aggregate facility.

10(2) When an aggregate facility has a baseline emission intensity re-established, the aggregate facility will maintain the same reduction period.

10(3) All production classes within an aggregate facility are subject to the same reduction period, including if new production classes are introduced.

10(4) If an operator removes an aggregate facility from registration according to section 7 of the Regulations and subsequently registers that aggregate facility or any individual facility that was part of the aggregate facility as an aggregate facility or large emitter facility at another time, the reduction period continues for that facility as though it was never removed from registration.

10(5) If an individual facility or group of individual facilities added to an aggregate facility have a different reduction period than the aggregate facility:

(a) if the total regulated emissions of the facility or group of facilities being added to the aggregate facility is equal to or below 1,000 tonnes CO_2e, the reduction period of the aggregate facility is maintained including the newly added facility or facilities; or

(b) if the total regulated emissions of the facility or group of facilities being added to the aggregate facility is above 1,000 tonnes CO_2e, the reduction period with the more stringent performance standard allocation between the individual facility or group of facilities and the aggregate facility is applicable to the aggregate facility including the newly added facility or facilities.

10(6) For the purposes of subsection 10(5), a group of individual facilities includes any individual facilities added to an aggregate facility within a three-month period.

10(7) The reduction period determined in subsection 10(5) applies to the aggregate facility for the compliance year in which the individual facility or group of individual facilities is added to the aggregate facility.

11. Determining Baseline Years

11(1) A regulated emitter will use as a baseline year for the aggregate facility the calendar year prior to the first compliance year for that aggregate facility.

12. Calculating Emissions and Production by Production Class

12(1) For the purpose of calculating emissions by production class for an aggregate facility that is subject to Part 2 of this Standard:

(a) a regulated emitter shall determine the total volume of each fuel type from stationary fuel combustion sources owned or controlled by the regulated emitter, other than those from a gas-to-power operation that is integrated into the aggregate facility, for each production class at the aggregate facility by:

$$\boldsymbol{V_{i-a-j}} = \sum_{\boldsymbol{f=1}}^{\boldsymbol{m}} \boldsymbol{FV_{i-a-j-f}}$$

where:

$\boldsymbol{V_{i-a-j}}$ is the total volume of a particular fuel type j from stationary fuel combustion, other than from a gas-to-power operation, that is integrated into the aggregate facility, for

production class a in baseline or compliance year i, expressed in units consistent with the prescribed emission factor for the particular fuel type as listed in Appendix D;

$\boldsymbol{FV_{i-a-j-f}}$ is the total volume of a particular fuel type j from stationary fuel combustion at individual facility f in production class a in baseline or compliance year i, other than for use in a gas-to-power operation, expressed in units consistent with the prescribed emission factor for the particular fuel type as listed in Appendix D;

$\boldsymbol{i}$ is the baseline year for the purpose of calculating the baseline emissions level or the compliance year for the purpose of calculating total regulated emissions;

$\boldsymbol{f}$ is the individual facility operating within production class a;

$\boldsymbol{m}$ is the number of individual facilities operating in production class a;

$\boldsymbol{a}$ is a production class of the aggregate facility; and

$\boldsymbol{j}$ is the particular fuel type; and,

(b) a regulated emitter shall determine the baseline emissions level for each production class at an aggregate facility by:

$$\boldsymbol{BEL_a} = \sum_{j} (\boldsymbol{V_{i-a-j}} \times \boldsymbol{EF_j})$$

where:

$\boldsymbol{BEL_a}$ is the baseline emissions level for production class a of the aggregate facility, expressed in tonnes of CO_2e;

$\boldsymbol{V_{i-a-j}}$ is the total volume of a particular fuel type j from stationary fuel combustion, other than from a gas-to-power operation that is integrated into the aggregate facility, for production class a in baseline year i, expressed in units consistent with the prescribed emission factor for the particular fuel type as listed in Appendix D;

$\boldsymbol{EF_j}$ is the prescribed emission factor for the particular fuel type j, as listed in Appendix D;

$\boldsymbol{i}$ is the baseline year;

$\boldsymbol{a}$ is a production class of the aggregate facility; and

$\boldsymbol{j}$ is the particular fuel type.

12(2) For the purpose of calculating emissions by production class for an aggregate facility that is subject to Part 3 of this Standard:

(a) a regulated emitter shall determine the total emissions of each prescribed greenhouse gas species from stationary fuel combustion sources owned or controlled by the regulated emitter, other than those from a gas-to-power operation that is integrated into the aggregate facility, for each production class at the aggregate facility by:

$$\boldsymbol{G_{i-a-p}} = \sum_{\boldsymbol{f=1}}^{\boldsymbol{m}} \boldsymbol{FG_{i-a-p-f}}$$

where:

$\boldsymbol{G_{i-a-p}}$ is the total emissions of a particular prescribed greenhouse gas species p from stationary fuel combustion, other than from a gas-to-power operation that is integrated into the aggregate facility, for production class a in baseline or compliance year i, expressed in tonnes of the prescribed greenhouse gas species p;

$\boldsymbol{FG_{i-a-p-f}}$ is the total emissions of a particular prescribed greenhouse gas species p from stationary fuel combustion at individual facility f in production class a other than from a gas-to-power operation, in baseline or compliance year i, expressed in tonnes of the prescribed greenhouse gas species p;

$\boldsymbol{i}$ is the baseline year for the purpose of calculating the baseline emissions level or the compliance year for the purpose of calculating total regulated emissions;

$\boldsymbol{f}$ is the individual facility operating within production class a for the aggregate facility;

$\boldsymbol{m}$ is the number of individual facilities operating within production class a;

$\boldsymbol{a}$ is a production class of the aggregate facility; and

$\boldsymbol{p}$ is a prescribed greenhouse gas species.

(b) a regulated emitter shall determine the baseline emissions level for each production class at an aggregate facility by:

$$\boldsymbol{BEL_a} = \sum_{\boldsymbol{p}} (\boldsymbol{G_{i-a-p}} \times \boldsymbol{GWP_p})$$

where:

$\boldsymbol{BEL_a}$ is the baseline emissions level for all individual facilities which operate in production class a, expressed in tonnes of CO_2e;

$\boldsymbol{G_{i-a-p}}$ is the total emissions of a particular prescribed greenhouse gas species p from stationary fuel combustion, other than from a gas-to-power operation that is integrated into the

aggregate facility, for production class a in baseline year i, expressed in tonnes of the prescribed greenhouse gas species p;

$\boldsymbol{GWP_p}$ is the global warming potential for the particular prescribed greenhouse gas species p as listed in Appendix B;

$\boldsymbol{a}$ is a production class of the aggregate facility;

$\boldsymbol{i}$ is the baseline year; and

$\boldsymbol{p}$ is a prescribed greenhouse gas species.

12(3) Any regulated emitter subject to this Standard shall determine the baseline production level for each production class at an aggregate facility by:

$$\boldsymbol{BPL_a} = \sum_{f=1}^{m} \boldsymbol{P_{i-a-f}}$$

where:

$\boldsymbol{BPL_a}$ is the baseline production level for production class a, expressed in BOE;

$\boldsymbol{P_{i-a-f}}$ is the amount of production produced during baseline year i at individual facility f operating in production class a, expressed in BOE;

$\boldsymbol{i}$ is the baseline year;

$\boldsymbol{a}$ is a production class of the aggregate facility;

$\boldsymbol{f}$ is an individual facility operating within production class a; and

$\boldsymbol{m}$ is the number of individual facilities *f* operating within production class a.

13. Baseline Submissions

13(1) When preparing a baseline submission for an aggregate facility, a regulated emitter shall:

(a) complete any required forms;

(b) provide a Quantification Methodology Document with the required emissions and production information, in accordance with the Quantification Methodology Document Template for Regulated Emitters Subject to *The Management and Reduction of Greenhouse Gases (Upstream Oil and Gas Aggregate Facility) Standard*;

(c) in the event that an aggregate facility has an on-site cogeneration unit at any individual facility, provide a simplified process flow diagram of the cogeneration unit layout and the following information for the baseline year:

(i) the total amount of fuel used by the cogeneration unit;

(ii) the total emissions from cogeneration;

(iii) the heat production emissions from cogeneration;

(iv) the electricity production emissions from cogeneration;

(v) the total net heat produced by cogeneration;

(vi) the total electricity production from cogeneration; and

(vii) the operating time of the cogeneration unit;

(d) provide a signed declaration from an authorized signing officer for the aggregate facility attesting to the accuracy and completeness of the baseline submission;

(e) include a completed verification report in accordance with the Verification Report Template for Regulated Emitters Subject to *The Management and Reduction of Greenhouse Gases (Upstream Oil and Gas Aggregate Facility) Standard* and a signed statement of verification from a qualified person who performed a verification on the aggregate facility; and

(f) submit all required information to the minister in the manner specified by the minister.

13(2) Prior to submitting a baseline submission a regulated emitter shall ensure that the information contained within the baseline submission is verified by a qualified person according to section 22, unless the aggregate facility is subject to subsection 13(7).

13(3) A regulated emitter shall submit the completed, verified baseline submission within six months from the date of registration for the aggregate facility.

13(4) After a submitted baseline submission for an aggregate facility has been reviewed for completeness, the regulated emitter will be provided a written response that:

(a) approves the information provided in the baseline submission for the aggregate facility; or

(b) indicates the baseline submission for the aggregate facility is incomplete or has errors, details of the problem(s) or issue(s), and/or any action required by the regulated emitter, 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 submission re-verified.

13(5) Upon receipt of a written response in clause 13(4)(b), a regulated emitter shall fulfil any actions required and resubmit the required information prior to the deadline indicated in the written response.

13(6) Upon resubmission of required information in clause 13(4)(b), the information will be reviewed and the regulated emitter will be provided a written response that:

(a) provides a statement in accordance with subsection 13(4); or

(b) establishes the baseline emission intensity for each production class at the aggregate facility.

13(7) Notwithstanding subsections 13(1)(e) and (2) a baseline submission does not need to be verified by a qualified person and a verification report is not required if the minister is satisfied the baseline emissions for the aggregate facility are equal to or less than 1,000 tonnes CO_2e.

14. Calculating Baseline Emissions Intensity

14(1) A regulated emitter shall determine a baseline emissions intensity for each production class in which at least one individual facility within the aggregate facility operates.

14(2) A regulated emitter shall determine the baseline emissions intensity for a production class at an aggregate facility by:

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

where:

$\boldsymbol{BEI_a}$ is the baseline emissions intensity for production class a, expressed in tonnes of CO_2e per BOE;

$\boldsymbol{BEL_a}$ is the baseline emissions level for production class a, expressed in tonnes of CO_2e;

$\boldsymbol{BPL_a}$ is the baseline production level for production class a, expressed in BOE; and

$\boldsymbol{a}$ is the production class.

15. Re-establishing Baseline Emissions Intensity

15(1) Re-establishing baseline emissions intensity occurs at the level of production classes at the aggregate facility.

15(2) A regulated emitter shall notify the minister within 30 days if the conditions in subsections 25(4) or 28(4) of this Standard or one of the conditions in subsections 13(3)(a) through 13(3)(g) of the Regulations is satisfied, excluding:

(a) subsection 13(3)(c) of the Regulations, which does not apply to the decommissioning of individual facilities contained within the aggregate facility; and

(b) subsections 13(3)(a) and 13(3)(b) of the Regulations, which do not apply to aggregate facilities as all products are measured in BOE.

15(3) For the purpose of 15(2), the addition of a gas-to-power operation to or the removal of a gas-to-power operation from an aggregate facility is not considered a change in one of the conditions noted in clause 13(3)(g) of the Regulations.

15(4) At the minister's discretion, if a regulated emitter applies or is required to re-establish the baseline emissions intensity for one production class, re-establishment of the baseline emission intensities of the other production classes is not required if the minister is satisfied that the baseline emission intensities for other production classes are not affected.

15(5) If a regulated emitter applies or is required to re-establish the baseline emissions intensity for a production class at the aggregate facility, the regulated emitter shall verify any information required to re-establish the baseline emissions intensity that has been changed or has not been verified in a previous submission, unless the aggregate facility satisfies the criteria in subsection 13(7).

15(6) In an application submitted by a regulated emitter to re-establish the baseline emissions intensity for a production class at an aggregate facility, the regulated emitter shall provide the information necessary to properly review the current and proposed baseline emissions intensity, including:

(a) a statement by the regulated emitter as to why the application to change the baseline emissions intensity for the production class at the aggregate facility is being made;

(b) the proposed new baseline emissions intensity; and

(c) evidence that demonstrates the proposed baseline emissions intensity in clause 15(6)(b) is representative for the production class at the aggregate facility; and

(d) demonstration that verification required by subsection 15(5) has occurred, if applicable.

15(7) Upon submission of an application by a regulated emitter the application will be reviewed and the regulated emitter 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.

15(8) Upon resubmission of required information by the regulated emitter, the information will be reviewed, in accordance with section 17 of the Act, and the regulated emitter will be provided with:

(a) a written response in accordance with subsection 15(7); or

(b) a written response that establishes the baseline emissions intensity for the production class at the aggregate facility.

16. Calculating Performance Standards

16(1) A regulated emitter shall determine the performance standard for each production class of the aggregate facility.

16(2) For the purposes of section 12 of the Regulations, a production class is considered a product for the purposes of determining a performance standard allocation for that production class.

16(3) A regulated emitter shall determine the performance standard for each production class of the aggregate facility in a given reduction period by:

$$\boldsymbol{PS_{k-a} = PSA_k \times BEI_a}$$

where:

$\boldsymbol{PS_{k-a}}$ is the performance standard for production class a at an aggregate facility in reduction period k, expressed in tonnes of CO_2e per BOE;

$\boldsymbol{PSA_k}$ is the performance standard allocation at an aggregate facility in reduction period k as determined by Table 1 of the Regulations;

$\boldsymbol{BEI_a}$ is the baseline emissions intensity for production class a at the aggregate facility, expressed in tonnes of CO_2e per BOE;

$\boldsymbol{a}$ is the production class of the aggregate facility which is in reduction period k; and

$\boldsymbol{k}$ is the current reduction period for the aggregate facility, as established in section 10.

16(4) If an individual facility within a production class at an aggregate facility has emissions associated with electricity generated using cogeneration, a regulated emitter shall determine the performance standard for that production class at the aggregate facility in a given reduction period by:

$$\boldsymbol{PS_{k-a}} = \boldsymbol{PSA_k} \times \left(\boldsymbol{BEI_a} - \frac{\sum_{f=1}^{m} \boldsymbol{EG_{i-a-f}}}{\boldsymbol{BPL_a}} \right) + \frac{\sum_{f=1}^{m} \boldsymbol{EG_{k-a-f}}}{\sum_{f=1}^{m} \boldsymbol{P_{k-a-f}}}$$

where:

$\boldsymbol{PS_{k-a}}$ is the performance standard for production class a at an aggregate facility in reduction period k, expressed in tonnes of CO_2e per BOE;

$\boldsymbol{PSA_k}$ is the performance standard allocation at an aggregate facility in reduction period k as determined by Table 1 of the Regulations;

$\boldsymbol{BEI_a}$ is the baseline emissions intensity for production class a of the aggregate facility, expressed in tonnes of CO_2e per BOE;

$\boldsymbol{BPL_a}$ is the baseline production level for production class a, expressed in BOE;

$\boldsymbol{EG_{i-a-f}}$ is the portion of stationary fuel combustion emissions at individual facility f, which operates in production class a during baseline year i, associated with electricity generated on-site at the individual facility using cogeneration, if applicable, expressed in tonnes of CO_2e;

$\boldsymbol{EG_{k-a-f}}$ is the portion of stationary fuel combustion emissions at individual facility f, which operates in production class a during reduction period k, associated with electricity generated on-site at the individual facility using cogeneration, if applicable, expressed in tonnes of CO_2e;

$\boldsymbol{P_{k-a-f}}$ is the level of production at individual facility f in production class a during reduction period k, expressed in BOE;

$\boldsymbol{i}$ is the baseline year;

$\boldsymbol{a}$ is the production class of the aggregate facility;

$\boldsymbol{k}$ is the current reduction period for the aggregate facility, as established in section 10;

$\boldsymbol{f}$ is an individual facility operating within production class a; and

$\boldsymbol{m}$ is the number of individual facilities f operating within production class a.

17. Emissions Returns

17(1) When preparing an emissions return for an aggregate facility, a regulated emitter shall:

(a) complete any required forms;

(b) provide a Quantification Methodology Document with the required emissions and production information, in accordance with the Quantification Methodology Document Template for Regulated Emitters Subject to *The Management and Reduction of Greenhouse Gases (Upstream Oil and Gas Aggregate Facility) Standard*;

(c) provide a signed declaration from an authorized signing officer for the aggregate facility attesting to the accuracy and completeness of the emissions return;

(d) include a completed verification report in accordance with the Verification Report Template for Regulated Emitters Subject to *The Management and Reduction of Greenhouse Gases (Upstream Oil and Gas Aggregate Facility) Standard* and a signed statement of verification from a qualified person who performed a verification on the aggregate facility; and

(e) submit all required information to the minister in the manner specified by the minister.

17(2) Prior to submitting an emissions return a regulated emitter shall ensure that the information contained within the return is verified by a qualified person according to section 22, unless the aggregate facility is subject to subsection 17(7).

17(3) A regulated emitter shall submit the completed, verified emissions return for an aggregate facility by June 1 of the compliance year established in Appendix C.

17(4) After a submitted emissions return for an aggregate facility has been reviewed for completeness, the regulated emitter will be provided with:

(a) a written response approving the information provided in the emissions return and confirming any compliance obligation owed by the regulated emitter; or,

(b) a written response indicating the emissions return is incomplete or has errors, details of the problem(s) or issue(s), and/or any action required by the regulated emitter, 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.

17(5) Upon receipt of a written response in clause 17(4)(b), a regulated emitter shall fulfil any actions required and resubmit the required information prior to the compliance return deadline for that compliance year.

17(6) Upon resubmission of required information in clause 17(4)(b), the information will be reviewed and the regulated emitter will be provided a written response subject to subsection 17(4).

17(7) Notwithstanding subsection 17(1)(d) and (2), an emissions return does not need to be verified by a qualified person and a verification report is not required if the minister is satisfied that emissions

from the aggregate facility are equal to or less than 1,000 tonnes CO_2e in the compliance year for which the emissions return was prepared.

18. Total Regulated Emissions

18(1) A regulated emitter who owns or operates an aggregate facility subject to Part 2 of this Standard shall determine the total regulated emissions for that aggregate facility during a compliance year by:

$$\boldsymbol{TE_i} = \sum_{\boldsymbol{a=1}}^{\boldsymbol{n}} \left(\sum_{\boldsymbol{j}} \left(\boldsymbol{V_{i-a-j}} \times \boldsymbol{EF_j} \right) + \sum_{\boldsymbol{l}}^{\boldsymbol{q}} \boldsymbol{GP_{i-a-l}} \right)$$

where:

$\boldsymbol{TE_i}$ is the total regulated emissions for the aggregate facility in compliance year i, expressed in tonnes of CO_2e;

$\boldsymbol{V_{i-a-j}}$ is the total volume of a particular fuel type j from stationary fuel combustion for production class a in compliance year i, other than for use in a gas-to-power operation, expressed in units consistent with the prescribed emission factor for the particular fuel type as listed in Appendix D;

$\boldsymbol{EF_j}$ is the prescribed emission factor for the particular fuel type j, as listed in Appendix D;

$\boldsymbol{GP_{i-a-l}}$ is the stationary fuel combustion emissions from the l^{th} gas-to-power operation that is integrated into the aggregate facility in production class a in compliance year i, if applicable, expressed in tonnes of CO_2e;

$\boldsymbol{i}$ is the compliance year;

$\boldsymbol{a}$ is a production class of the aggregate facility;

$\boldsymbol{j}$ is the particular fuel type;

$\boldsymbol{l}$ is a particular gas-to-power operation in production class a that is integrated into the aggregate facility;

$\boldsymbol{q}$ is the number of gas-to-power operations in production class a that are integrated into the aggregate facility; and

$\boldsymbol{n}$ is the number of production classes at the aggregate facility.

18(2) A regulated emitter who owns or operates an aggregate facility subject to Part 3 of this Standard shall determine the total regulated emissions for that aggregate facility during a compliance year by:

$$\boldsymbol{TE_i} = \sum_{a=1}^{n}\left(\sum_{p}(\boldsymbol{G_{i-a-p}} \times \boldsymbol{GWP_p}) + \sum_{l}^{q} \boldsymbol{GP_{i-a-l}}\right)$$

where:

$\boldsymbol{TE_i}$ is the total regulated emissions for the aggregate facility in compliance year i, expressed in tonnes of CO_2e;

$\boldsymbol{G_{i-a-p}}$ is the total emissions of a particular prescribed greenhouse gas species p from stationary fuel combustion for production class a in compliance year i, other than from a gas-to-power operation, expressed in tonnes of the prescribed greenhouse gas species p;

$\boldsymbol{GP_{i-a-l}}$ is the stationary fuel combustion emissions from the l^{th} gas-to-power operation that is integrated into the aggregate facility in production class a in compliance year i, if applicable, expressed in tonnes of CO_2e;

$\boldsymbol{GWP_p}$ is the global warming potential for the particular prescribed greenhouse gas species p as listed in Appendix B;

$\boldsymbol{a}$ is a production class for the aggregate facility;

$\boldsymbol{i}$ is the compliance year;

$\boldsymbol{p}$ is a prescribed greenhouse gas species;

$\boldsymbol{l}$ is a particular gas-to-power operation in production class a that is integrated into the aggregate facility;

$\boldsymbol{q}$ is the number of gas-to-power operations in production class a that are integrated into the aggregate facility; and

$\boldsymbol{n}$ is the number of production classes at the aggregate facility.

19. Permitted Emissions

19(1) A regulated emitter shall determine the permitted emissions for an aggregate facility for a given compliance year by:

$$\boldsymbol{PE_i} = \sum_{a=1}^{n}\left(\left(\boldsymbol{PS_{k-a}} \times \sum_{f=1}^{m} \boldsymbol{P_{i-a-f}}\right) + \boldsymbol{0.95} \times \sum_{l}^{q} \boldsymbol{GP_{i-a-l}}\right)$$

where:

$\boldsymbol{PE_i}$ is the permitted emissions for an aggregate facility during the compliance year i, expressed in tonnes of CO_2e;

$\boldsymbol{PS_{k-a}}$ is the performance standard for production class a at an aggregate facility in reduction period k, expressed in tonnes of CO_2e per BOE;

$\boldsymbol{P_{i-a-f}}$ is the level of production at individual facility f in production class a during compliance year i, expressed in BOE;

$\boldsymbol{GP_{i-a-l}}$ is the stationary fuel combustion emissions from the l^{th} gas-to-power operation that is integrated into the aggregate facility in production class a in compliance year i, if applicable, expressed in tonnes of CO_2e;

$\boldsymbol{a}$ is a production class of the aggregate facility;

$\boldsymbol{i}$ is the compliance year;

$\boldsymbol{k}$ is the reduction period for the aggregate facility;

$\boldsymbol{n}$ is the number of production classes with active production at the aggregate facility during compliance year i;

$\boldsymbol{f}$ is an individual facility operating within production class a;

$\boldsymbol{l}$ is a particular gas-to-power operation in production class a that is integrated into the aggregate facility;

$\boldsymbol{q}$ is the number of gas-to-power operations in production class a that are integrated into the aggregate facility; and

$\boldsymbol{m}$ is the number of individual facilities f operating within production class a.

20. Compliance Returns

20(1) If it is determined based on an emissions return for an aggregate facility that the regulated emitter owes a compliance obligation, the regulated emitter shall submit a compliance return by October 31 of the year indicated in the schedule established in Appendix C.

20(2) The compliance return 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) a payment into the Saskatchewan Technology Fund for compliance;

(ii) all performance credits submitted for compliance; and

(iii) all offset credits submitted for compliance.

20(3) After a submitted compliance return for an aggregate facility has been reviewed for completeness, the regulated emitter will be provided with:

(a) a written response approving the information provided in the compliance return and confirming that the compliance obligation has been fulfilled; or

(b) a written response indicating that the compliance return is incomplete or has errors, details of the problem(s) or issue(s), and/or any action required by the regulated emitter, including:

(i) providing additional information that may be requested or required; and/or

(ii) any corrective action that may be required.

20(4) Upon receipt of a written response in clause 20(3)(b), the regulated emitter shall fulfil any actions required and resubmit the required information prior to the deadline established in the written response.

20(5) Upon resubmission of required information in clause 20(3)(b), the information will be reviewed, and the regulated emitter will be provided a written response subject to subsection 20(3).

20(6) There are no provisions in this Standard or the Regulations that guarantee the availability of any compliance option for the purpose of fulfilling a compliance obligation, other than payment to the minister for deposit to the Saskatchewan Technology Fund.

21. Generation of Performance Credits

21(1) Regulated aggregate facilities or any individual facility within the aggregate facility may be eligible to generate performance credits in the manner established by an order made pursuant to section 20(1) of the Regulations respecting performance credits.

22. Verification Requirements

22(1) If there is any conflict between this Standard and the ISO 14064-3 or ISO 14065 standards, this Standard prevails.

22(2) This section does not apply to an aggregate facility if the minister is satisfied the aggregate facility had total regulated emissions equal to or less than 1,000 tonnes CO_2e in the year for which a verification would otherwise be required.

22(3) For the purpose of performing verification of emissions returns or baseline submissions under the Regulations, a qualified person is a person employed by an accredited verification body.

22(4) A regulated emitter shall ensure that a verification team performing verification on an aggregate facility meets the following criteria:

(a) all members of a verification team are employed by an accredited verification body; and

(b) the accredited verification body employing the members of the verification team meets the requirements of and is accredited under ISO 14065.

22(5) For the purpose of verifying a baseline submission or an emissions return for an aggregate facility in accordance with the Regulations and this Standard, a regulated emitter shall provide access to any individual facility within the aggregate facility, any personnel, records, and other information or resources as requested by the verification team conducting the verification.

22(6) A regulated emitter shall ensure that a verification report is prepared for the aggregate facility in accordance with the Verification Report Template for Regulated Emitters Subject to *The Management and Reduction of Greenhouse Gases (Upstream Oil and Gas Aggregate Facility) Standard* and the ISO 14064-3 standard.

22(7) A regulated emitter shall ensure that before a positive, qualified positive or adverse verification statement is prepared, the determination that forms the basis of the statement is 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 aggregate facility; and

(c) the person has not been a member of a verification team that has performed verification with respect to the aggregate facility for at least three compliance years.

22(8) A regulated emitter shall ensure that the verification of emissions and production data associated with the emissions return or baseline submission for an aggregate facility is completed to a reasonable level of assurance in accordance with the ISO 14064-3 standard.

22(9) Materiality is determined according to the following formula:

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

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_2e; 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 units of BOE; and

B is:

(a) for the purposes of the verification of greenhouse gas emissions, the total regulated emissions, in tonnes of CO_2e, as corrected by the third party verifier; or

(b) for the purposes of the verification of production data, the total amount of product produced, in the units of BOE.

22(10) For the purpose of completing a verification statement for an aggregate facility, a material discrepancy in the emissions and production data reported by the regulated emitter will exist if the level of materiality exceeds the following thresholds:

(a) for greenhouse gas emissions,

(i) 5 per cent of quantified greenhouse gas emissions for an aggregate facility emitting less than 500,000 tonnes CO_2e in the given compliance year; and

(ii) 2 per cent of quantified greenhouse gas emissions for an aggregate facility emitting 500,000 tonnes CO_2e or more in the given compliance year; and

(b) for production, 0.1 per cent of quantified product for the aggregate facility.

22(11) A regulated emitter 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 1 of this section based on the corresponding determination made by the verification team in Column 2 of Table 1 of this section.

22(12) To ensure impartiality with respect to an aggregate facility undergoing verification a regulated emitter shall ensure that:

(a) an accredited verification body does not verify an emissions return for the aggregate facility if conducting the verification would result in more than seven consecutive verifications on emissions returns for the aggregate facility by that same accredited verification body; and

(b) a verification team does not perform verification for the aggregate 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.

Table 1
Types of Verification

Type of Verification	Determination of Verification Team
Positive	Both of the following circumstances apply: (i) there is a reasonable level of assurance that the emissions return or baseline submission contains no material discrepancy in emissions or production parameters; and (ii) the emissions return or baseline submission was prepared in accordance with this Standard.
Qualified Positive	Both of the following circumstances apply: (i) there is a reasonable level of assurance that the emissions return or baseline submission contains no material discrepancy in emissions or production parameters; and (ii) the emissions return or baseline submission was prepared substantially in accordance with this Standard.
Adverse	One or both of the following circumstances apply: (i) there is a reasonable level of assurance that the emissions return or baseline submission contains a material discrepancy in emissions or production parameters; and/or (ii) the emissions return or baseline submission was not prepared substantially in accordance with this Standard.

22(13) For the purposes of performing verification with respect to an aggregate facility, a site visit to the facility is required if:

(a) no verification team has visited the aggregate facility for the purposes of conducting a verification in the most recent three compliance years, exclusive of visits made to an individual facility under subsection 22(13)(e);

(b) the most recent verification of an emissions return with respect to the aggregate facility resulted in an adverse verification statement being submitted to the minister;

(c) the verification is the first by the accredited verification body with respect to the aggregate facility;

(d) verification of baseline emissions intensity data is required in accordance with subsection 15(5); or

(e) An individual facility is added to the aggregate facility that has or is expected to have annual greenhouse gas emissions of 5,000 tonnes CO_2e or more which has not previously been subject to a site visit while a part of the aggregate facility.

22(14) The regulated emitter must ensure that site visits include:

(a) For the purposes of clause 22(13)(a):

(i) all individual facilities within the aggregate facility that have regulated emissions of 5,000 tonnes CO_2e or more in the year to which the verification applies, excluding any individual facility that has been visited within the most recent three compliance years under clause 22(13)(e); and

(ii) if an aggregate facility is subject to Part 3 of this Standard, a total number of individual facilities that allows the verifier to perform a verification to a reasonable level of assurance;

(b) For the purposes of clause 22(13)(b) to 22(13)(d):

(i) all individual facilities within the aggregate facility that have regulated emissions of 5,000 tonnes CO_2e or more in the year to which the verification applies; and

(ii) if an aggregate facility is subject to Part 3 of this Standard, a total number of individual facilities that allows the verifier to perform a verification to a reasonable level of assurance; and

(c) For the purposes of clause 22(13(e), the newly added individual facility with total regulated emissions of 5,000 tonnes CO_2e or more.

22(15) Notwithstanding subsections 22(13) and (14), a site visit is not required at any individual facility within an aggregate facility that is subject to Part 2 of this Standard if regulated emissions at the individual facility are less than 5,000 tonnes CO_2e in the year to which the verification applies.

22(16) A regulated emitter shall ensure that all records and information respecting the verification of an emissions return or baseline submission are retained and accessible upon request for at least seven years after the date on which the records or information are created.

Part 2 – Provisions Specific to Aggregate Facilities with Annual Emissions Below 10,000 Tonnes CO_2e

23. Application of Part 2

23(1) If an aggregate facility had annual emissions below 10,000 tonnes CO_2e in its baseline year, Part 2 of this Standard applies to that aggregate facility for its first three compliance years.

23(2) If an aggregate facility is in its fourth or subsequent compliance year, Part 2 of this Standard applies to that aggregate facility if:

(a) Part 2 of this Standard applied to that facility in the most recent compliance year and the aggregate facility had annual emissions below 10,000 tonnes CO_2e in at least one of the three most recent compliance years; or

(b) Part 3 of this Standard applied to that facility in the most recent compliance year, and the aggregate facility had annual emissions below 10,000 tonnes CO_2e in each of the three most recent compliance years.

23(3) For the purposes of clause 23(2)(b), Part 2 of this Standard applies to the aggregate facility effective January 1 of the compliance year after it satisfies the conditions of 23(2)(b).

24. Updating Facility Information

24(1) A regulated emitter must provide updated facility information quarterly on January 1, April 1, July 1 and September 1 of each year that an aggregate facility is registered under the Regulations and this Standard.

24(2) If in a given year January 1, April 1, July 1 or September 1 falls on a day that is not a business day, the updated facility information must be provided on the first business day following January 1, April 1, July 1 or September 1 of that year.

24(3) If in a given year, through addition or removal of individual facilities, the regulated emissions associated with an aggregate facility change by at least 10 per cent, a regulated emitter may provide updated facility information prior to the next deadline specified in subsections 24(1) or 24(2).

24(4) The updated facility information must include:

(a) individual facilities which are no longer operated by the operator;

(b) individual facilities which have been added to the aggregate facility and for those facilities:

  (i) the production class for each individual facility;

  (ii) the registry facility identification number for each individual facility; and

  (iii) the location of each individual facility, including the latitude and longitude coordinates and DLS surface location for each individual facility;

(c) a list of all acquired facilities including:

  (i) the operator from which each facility was acquired; and

  (ii) the date on which each facility was acquired;

(d) a list of all facilities sold including:

(i) the operator to which each facility was sold; and

(ii) the date on which each facility was sold;

(e) if requested by the ministry, an updated map that demonstrates the location of each individual facility within Saskatchewan; and

(f) a signed declaration from the authorized signing officer for the aggregate facility.

24(5) A regulated emitter may be required to provide a boundary map for each individual facility within an aggregate facility.

25. Emissions Quantification Methodology

25(1) A regulated emitter subject to this Part shall use a default emission factor calculation method for the purposes of determining emissions from stationary fuel combustion sources at each individual facility within an aggregate facility.

25(2) For the purposes of subsection 25(1), when determining emissions from stationary fuel combustion sources at each individual facility within an aggregate facility, a regulated emitter shall use:

(a) The default emission factors by production class listed in Table 5 of Appendix D with fuel volumes that are reported to the registry; and,

(b) The CO_2 equivalent emission factors listed in Table 6 of Appendix D with fuel volumes that are not reported to the registry.

25(3) If an aggregate facility previously subject to Part 3 of this Standard becomes subject to this Part, the regulated emitter may continue to use the emissions quantification methodology established under Part 3 for that aggregate facility.

25(4) If a regulated emitter previously subject to Part 3 of this Standard adopts the emissions quantification methodology determined in subsections 25(1) and 25(2) for an aggregate facility which it operates, the baseline emissions for that aggregate facility shall be re-established to reflect the adopted emissions quantification methodology.

Part 3 – Provisions Specific to Aggregate Facilities with Annual Emissions of 10,000 Tonnes CO_2e or Greater

26. Application of Part 3

26(1) If an aggregate facility had annual emissions of 10,000 tonnes CO_2e or more in its baseline year, Part 3 of this Standard applies to that aggregate facility for its first three compliance years.

26(2) If an aggregate facility is in its fourth or subsequent compliance year, Part 3 of this Standard applies to that aggregate facility if:

(a) Part 3 of this Standard applied to that facility in the most recent compliance year and the aggregate facility had annual emissions of 10,000 tonnes CO_2e or more in at least one of the three most recent compliance years; or

(b) Part 2 of this Standard applied to that facility in the most recent compliance year, and the aggregate facility had annual emissions of 10,000 tonnes CO_2e or more in each of the three most recent compliance years.

26(3) For the purposes of clause 26(2)(b), Part 3 of this Standard applies to the aggregate facility effective January 1 of the compliance year after it satisfies the conditions of 26(2)(b).

27. Updating Facility Information

27(1) A regulated emitter must provide updated facility information on the first business day of each month for which the aggregate facility is registered under the Regulations and this Standard that includes:

(a) individual facilities which have been abandoned, or are no longer operated by the operator;

(b) individual facilities which have been added to the aggregate facility and for those facilities:

(i) the production class for each individual facility;

(ii) the registry facility identification number for each individual facility; and

(iii) the location of each individual facility, including the latitude and longitude coordinates and DLS surface location for each individual facility;

(c) a list of all acquired facilities including:

(i) the operator from which each facility was acquired; and

(ii) the date on which each facility was acquired;

(d) a list of all facilities sold including:

(i) the operator to which each facility was sold; and

(ii) the date on which each facility was sold;

(e) if requested by the ministry, an updated map that demonstrates the location of each individual facility within Saskatchewan; and

(f) a signed declaration from the authorized signing officer for the aggregate facility.

27(2) A regulated emitter may be required to provide a boundary map for each individual facility within an aggregate facility.

28. Emissions Quantification Methodology

28(1) A regulated emitter shall select, for an aggregate facility that is subject to this Part, an emissions quantification methodology that:

(a) is consistent with *Canada's Greenhouse Gas Quantification Requirements* for calculating emissions; or

(b) utilizes a combination of carbon content, Higher Heating Value (HHV), and fuel specific emissions factors, informed by the composition of fuels used within stationary fuel combustion sources at each individual facility within an aggregate facility.

28(2) A regulated emitter shall not use the production class emission factors listed in Appendix D to calculate emissions for an aggregate facility that is subject to this Part.

28(3) If an aggregate facility previously subject to Part 2 of this Standard becomes subject to this Part, the regulated emitter may not continue to use the emissions quantification methodology established under Part 2 for that aggregate facility.

28(4) The baseline emissions for any aggregate facility that is subject to subsection 28(3) shall be re-established to reflect the emissions quantification methodology adopted in accordance with subsection 28(1).

Appendix A – Production Classes

Table 2: Production Classes	
Class	**Description**
1	Lloydminster Heavy and Non-Heavy
2a	Kindersley Heavy
2b	Kindersley Non-Heavy
3	Swift Current Heavy and Non-Heavy
4	Estevan Heavy and Non-Heavy

Appendix B: Global Warming Potentials[1]

Table 3: Global Warming Potentials for Prescribed Greenhouse Gas Species		
Greenhouse Gas	**Chemical Formula**	**100 Year Global Warming Potential**
Carbon Dioxide	CO_2	1
Methane	CH_4	25
Nitrous Oxide	N_2O	298
Sulphur Hexafluoride	SF_6	22,800
Perfluorocarbons (PFCs)		
Perfluoromethane	CF_4	7,390
Perfluoroethane	C_2F_6	12,200
Perfluoropropane	C_3F_8	8,830
Perfluorobutane	C_4F_{10}	8,860
Perfluorocyclobutane	$c\text{-}C_4F_8$	10,300
Perfluoropentane	C_5F_{12}	9,160
Perfluorohexane	C_6F_{14}	9,300
Hydrofluorocarbons (HFCs)		
HFC-23	CHF_3	14,800
HFC-32	CH_2F_2	675
HFC-41	CH_3F	92
HFC-43-10mee	$CF_3CHFCHFCF_2CF_3$	1,640
HFC-125	CHF_2CF_3	3,500
HFC-134	CHF_2CHF_2	1,100
HFC-134a	CH_2FCF_3	1,430
HFC-143	CH_2FCHF_2	353
HFC-143a	CH_3CF_3	4,470
HFC-152a	CH_3CHF_2	124
HFC-227ea	CF_3CHFCF_3	3,220
HFC-236fa	$CF_3CH_2CF_3$	9,810
HFC-245ca	$CH_2FCF_2CHF_2$	693

1 Global warming potentials taken from IPCC's Fourth Assessment report. See https://www.ipcc.ch/site/assets/uploads/2018/05/ar4-wg1-errata.pdf

Appendix C: Baselines and Emission and Compliance Return Schedule

Table 4: Schedule for Baseline Submissions, Emissions Returns and Compliance Returns													
Aggregate Facilities with emissions over 10,000 tonnes CO_2e													
Compliance Year[1]	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**	**C12**	**Compliance Year following C12**
Verified Baseline Submitted for:	BL												
Verified Emissions Return Submitted[2] for:		C1	C2	C3		C4 & C5		C6 & C7		C8 & C9		C10 & C11	C12
Compliance Return Submitted[3] for:			C1 & C2	C3		C4 & C5		C6 & C7		C8 & C9		C10 & C11	C12
Aggregate Facilities with emissions under 10,000 tonnes CO_2e													
Compliance Year[1]	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**		**Compliance Year following C11**
Verified Baseline Submitted for:	BL												
Verified Emissions Return Submitted[2] for:		C1	C2		C3 & C4		C5 & C6		C7 & C8		C9 & C10		C11
Compliance Return Submitted[3] for:			C1 & C2		C3 & C4		C5 & C6		C7 & C8		C9 & C10		C11

[1] Returns continue to be required every second compliance year for the duration of the program.

[2] Emissions returns must be submitted by June 1 of the year indicated.

[3] Compliance returns must be submitted by October 31 of the year indicated.

Appendix D: Emission Factors

Table 5: Production Class Emissions Factors	
Production Class	**Combusted Gas Emissions Factor** (tonnes $CO_2e/10^3m^3$)
Lloydminster Heavy and Non-Heavy	1.83
Kindersley Heavy	2.00
Kindersley Non-Heavy	2.30
Swift Current Heavy and Non-Heavy	2.11
Estevan Heavy and Non-Heavy	2.88

Table 6: CO_2e Emission Factors	
Fuel	**(tonnes CO2e/kl)**
Butane	1.7800
Diesel*	2.6350
Ethane	1.0190
Gasoline**	2.1420
Propane	1.5480

*Diesel emission factor has been adjusted to account for 2% renewable fuel content, as mandated by Saskatchewan's *The Renewable Diesel Act*.

**Gasoline emission factor has been adjusted to account for 7.5% renewable fuel content, as mandated by Saskatchewan's *The Ethanol Fuel (General) Regulations*.

NOTE: If a fuel source that is utilized within an aggregate facility is not listed in Table 6, please contact the ministry.